

# BUSINESS WEEK



Liquid fuel joins solid fuel on the rails as marine deliveries to the East Coast continue to slump.

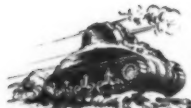
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# Pressing "Pants" for a 30-Ton Tank—

BEARING BUILT BY MORGAN CONSTRUCTION COMPANY



**TWENTY-TWO MILES** of hot steel per hour are rolled into wartank armor with the help of the giant bearing above.

This bearing carries a load of 2500 tons—or more. The journal "floats" on an extremely thin film of oil. *That film must not rupture!* It must shoulder the crushing load through long periods of non-stop running. For time-outs here can cost thousands of dollars every minute.

Socony-Vacuum has created *new* oils

to help keep bearings like this rolling.

These new oils are another example of how Socony-Vacuum is constantly solving tough lubrication problems.

Today—our 76 years' experience and unmatched research facilities are helping maintain vital production in industries taxed to capacity by wartime orders.

**SOCONY-VACUUM OIL CO., INC.**—Standard Oil of New York Div. • White Star Div. Lubrite Div. • Chicago Div. • White Eagle Div. • Wadhams Div. • Southeastern Div. (Baltimore) • Magnolia Petroleum Company General Petroleum Corp. of Calif.

TO HELP MAINTAIN  
CAPACITY PRODUCTION

CALL IN

**SOCONY-  
VACUUM**



*for Correct  
Lubrication*

# WASHINGTON BULLETIN

## WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

### Arms Ceiling Is Set

America's arms production plant is within sight of its ceiling. This is good news—not bad. It does not mean that output won't rise during the coming year to three and four times present levels. It does mean that in less than two years we have been able to erect the facilities required to convert this country's entire resources of material and manpower into battle equipment. It means the schedules we are now working on are, by and large, the final schedules. There will be shifts, changes, some increases, but you won't wake up another morning to find the bogie has been doubled or tripled.

### U.S. Catches the Bus

It's no surprise that there is a ceiling. There's a limit to what any country—with given population and skill and natural resources—can produce. Germany reached the limit several years ago. In fact U.S. and British experts think German production began to decline last July. The United States has already hit and pierced the German ceiling, is zooming toward a far higher one of its own.

The surprise is the speed with which we are getting there. The potentialities of mass production have amazed even the experts in mass production. By comparison, this country has never had real mass production before. The production men have always been limited by the market. Now for the first time we have thrown in the switch and left it in. And the rate at which we can chew up metal is like nothing on earth.

### A Matter of Men and Materials

This is why the decision has been made to ease off on further plant expansion. To supply the plants now working plus the plants under construction or contracted for will take all the materials we can provide. When the battlefields start consuming manpower, it may be all we can do to man these plants.

The decision is not, as sometimes represented, a gamble on a short war. Washington is optimistic these days—but not to the extent of putting all the chips on one hand. The decision is dictated by the simple arithmetic of tonnage and man-hours.

### As Necessity Arises

There has been no arbitrary stop-order on new plant construction. New plants

will be built—to open up a bottleneck, to adapt the production effort to some changed war requirement. But the great surge of plant expansion is over. The new policy applies, in the main, to end-product plants—the tank factories, the airplane assembly shops, the shipways.

Expansion of raw-material capacity will also continue at an accelerated pace. There will be no let-up on synthetic rubber (due to expand beyond the present 800,000-ton goal), high-octane gas, magnesium, aluminum. Finally, there will be redoubled effort at increased extraction capacity in the mines.

• **One Possible Exception**—Over steel there's dispute. Influential voices are urging continued expansion (page 22). Others suggest concentrating on blast furnaces to provide "artificial scrap." Some, even among the all-outers, argue that steel production is in an area of diminishing returns, that additional capacity isn't worth the effort required. There's doubt whether manpower will be available to make and cut up additional steel.

### Newcomers Are Latecomers

Business men should realize the implications of the new policy. By and large the war program has jelled. This is it; now we turn the crank. Increasingly the man looking for the first time for a war contract will be treated as a latecomer. With plant capacity to peddle, he'll find there's not as much demand for it. He'll have to fight for a cranny somewhere in the program—a program of which 45% is still held by 16 companies (BW—Jan. 10'42p7). And he won't be allowed to use excess capacity for civilian goods production, not at least while the military demands for materials of all kinds and varieties threaten more and more rationing of almost every type of consumer goods.

### Where Pressure Will Lift

Construction and machine tools are now within sight of the inevitable day when the pressure will come off them.

Construction, for instance, had a record-breaking fourteen billions of work lined up for 1942. It still has. But another seven billions of new work, which was due to come along in the next few months and slop over in 1943, won't be forthcoming. For the construction industry 1943 looks like just a normally active year.

Machine-tool builders, similarly, will be pushing hard this year on backlogs,

will find next year that a big share of their job is re-tooling of war plants for armament design changes.

• **Tightening Controls**—Priority changes to implement the new policy are being worked out. Limitations are going to be put on the power of Army and Navy procurement officers to authorize new plant expansion. Priorities on plants will be granted only by WPB and will cover only strictly defined quantities of construction materials and equipment.

### Drive for Forced Saving

The public has \$48,000,000,000 too much money. That's the contention of young government economists—spark-plugs of Administration policy—who once again are urging strong offensive action against inflation.

They're pushing for government capture—through higher taxes and forced savings—of about 35% of the national income. Their figuring is that national income will be \$117,000,000,000 this year, but that civilian goods production won't top \$69,000,000,000 (page 96). Capture of 35% of total income would sop up \$41,000,000,000 of the excess, leaving the remaining \$7,000,000,000 to be skimmed off by voluntary saving.

Soak up the inflationary surplus, these economists warn the White House, or the flood will come soon.

### Brakes on Pay Boosts

Limiting wage increases to 50% of the increased cost of living in the last year and payment of this added compensation in War Savings Bonds combine to form the basic policy of the National War Labor Board in administering the wage stabilization aspect of President Roosevelt's anti-inflation program. The Chicago shipbuilding stabilization agreement (page 15) apparently will serve as the model for NWLB.

Government controls over the great majority of wage disputes which never come to NWLB are also a probability. A subcommittee composed of NWLB Chairman William H. Davis; Leon Henderson, Federal Price Administrator; Paul V. McNutt, chairman of the War Manpower Commission; and Secretary of Labor Frances Perkins is considering asking the President for a directive which would forbid employers to grant general wage increases to workers getting more than \$25 per week without prior governmental sanction. Two Southern California aircraft factories now want to raise wages to compensate for increased living costs but are withholding action



# Your RIVERS



Serving the people  
to whom they be-  
long as a vital part  
of our national trans-  
portation system —  
regular, economical,  
dependable.

**T**HE RIVERS of America are yours. They came with the country. They were highways of transportation before the Constitution—before the Declaration of Independence.

The government of the United States since its earliest days has recognized the value of transportation as a national asset. It granted great tracts of land to the railroads to help them get started. It teamed up with the states in the building of roads and it set its engineers, more than a century ago, to the task of transforming the rivers into great thoroughfares of fast, economical and efficient transportation.

With the development of the rivers themselves has come a proportional expansion of transportation facilities. Locks and dams built by the government have been paralleled by tow-boats, barges and terminals built by the Barge Line Companies.

Today your rivers are busy. Today approximately 100,000,000 tons of freight per year moves up and down the Mississippi River System on fast, regular and dependable schedules. Your rivers are contributing handsomely to the all-out American industrial effort which the war has brought about. When the war has been won and the ways of peace are resumed they will continue to provide American shippers with the ways and means of modern transportation, regular, economical, dependable.

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until the government agencies decide whether the boost would conflict with the President's program.

## Formula on Wages?

Davis' scheme would hit hard at the high-paid craft groups.

The A.F.L. building trades and construction wage officials in WPB's Labor Division are urging on the President the merits of a stabilization formula evolved early this month from settlement of a building wage dispute in Detroit. In arbitrating the dispute, WPB's construction board of review divided the crafts into half a dozen skill groups, raised rates of each craft to that of the highest paid craft in its group.

The construction crowd thinks formulas could be evolved to classify nearly all jobs in industry according to skill, then stabilize by skill groups.

## S.W.O.C. Rides High

First returns are in from the most widespread poll ever conducted by the National Labor Relations Board, a plebiscite which will eventually record the bargaining preferences of 175,000 plant workers of United States Steel Corp. In the first 26 plants polled (out of some 50), the Steel Workers' Organizing Committee made a clean sweep, getting 22,028 out of 23,507 votes cast. Only 1,231 voted against the union, while 248 marked ballots which had to be declared void.

•Grown Up—Since final victory will mean exclusive bargaining rights in Big Steel, S.W.O.C. was riding high this week as it turned to Cleveland for a convention that was slated to convert it from an "organizing committee" to a constitutional union.

## Sales Tax Won't Down

Congress is still headed towards a sales tax. Yields from the House Ways and Means Committee's decisions—\$2,400,000,000 from corporations, \$2,750,000,000 from individuals, and \$300,000,000 from mandatory joint returns—still leave the lawmakers \$3,250,000,000 short of the Administration's \$8,700,000,000 war revenue goal.

Excise taxes suggested by the Treasury would add \$1,340,000,000—still not enough. If excises are to be increased and extended beyond that figure, there's strong sentiment in the House committee that a sales tax might as well be imposed on everything starting at, say, 2% on necessities and ranging up to 10% on luxuries. The average should be about 6%, sales-tax advocates agree, to yield not less than \$2,500,000,000.

## A Break for Construction

WPB's construction stop-order, L-41 (BW—Apr.18'42,p28), is proving less drastic in application than it looked at first. About 300 applications for exemption are reaching Washington every day and about 90% of the applications are being approved. Nearly everyone who

had a project ready to go on the stop date, Apr. 9, is getting clearance.

One reason for lenient administration is that the WPB production chief, William Harrison, took administration of the order away from the housing priorities boss, Sullivan Jones. Jones had instructed his field offices to turn down 99 out of 100 applications. The job now

## How Good Is the War News?

Washington is both pleased and worried by the wave of optimism which has swept the country as a result of the bold offensive of the Russians at Kharkov, the U. S. naval victory in the Coral Sea, and the arrival of additional units of an American Expeditionary Force in Northern Ireland. Obviously, the American people can do with a little good news for a change, but there is some concern lest too much optimism destroy the psychological basis for the sacrifices yet demanded.

A new phase of the war is developing and the United Nations are showing the initiative that was to be expected as soon as their production program began to show results.

Unquestionably 1942 is going to be the decisive year in this war, but, though there are daily fresh reasons for encouragement on the side of the United Nations, the real test is still ahead (BW—Mar.14'42,p33).

Despite the American victory in the battle of the Coral Sea and the damaging of the crack German cruiser, Prinz Eugen, off the coast of Norway, Axis submarines still make merchant shipping unsafe along the entire coast of North America while Axis planes based on Norway are taking a heavy toll on the convoys to Russia and on the docks at Murmansk and Archangel.

And despite the initial success which the Russians scored in the first week's battle around Kharkov, it was plain that neither that drive nor the German push on Kerch constituted in themselves the great offensives which had been anticipated for months.

The size of the newest A.E.F. to arrive in Ireland has been greatly exaggerated—at least, as far as contributing an important volume of manpower to a great new "second front" is concerned.

What business leaders need to sift out of the week's news if they are to prepare themselves intelligently for the shocks and setbacks which almost surely will be mingled with some

good news during the next four months are these facts:

(1) The entire Allied strategy is now based on Russia's ability to withstand the German onslaught. Moscow's powers of resistance are rated highly by almost all strategists, but important supplies must continue to be rushed to the Soviets over the perilous North Cape route, and the United Nations must be prepared to stage some kind of counter-offensive—either in the air or on some new front—if the Germans threaten at any time in the next few months to break through and capture Russia's vital Caucasus oil supplies.

(2) Unless planes in important numbers can be supplied to the Chinese, or some massive diversion created in Japan proper or along the Australian front (which is unlikely this year), it is questionable whether Chungking, alone, can withstand an all-out Japanese attack, now that Nipponese forces can drive at the Chinese from three sides.

(3) Our prodigious output of planes, tanks, and munitions is meaningless as far as these far-flung fronts are concerned unless we can speed up tremendously—this year—our output of ships. Though Admiral Land says we have reached the two-a-day production goal, it must be remembered that it will be another month or two before today's launchings are fitted out for active service, and another month to three months before they begin arriving in convoys at our fronts around the world.

There is a sound basis for optimism over the ultimate outcome of this war but it is not to be found in a surprise victory in the Coral Sea or in the arrival of a few thousand American soldiers in Ireland. It comes from an almost miraculous production job on the part of the United Nations, and from a shrewd new strategy of using what we have now to hold the Axis within bounds which will make it easier and cheaper to finish the job next year.



Charles S. Leopold, Philadelphia, Consulting Engineer. Member American Society of Heating and Ventilating Engineers, American Society of Refrigerating Engineers. B. S., E. E. University of Pennsylvania.

**"Steam** is a basic method of heating for other than the simplest structures," in the opinion of Charles S. Leopold, who adds: "Space requirements for generation, transmission and utilization, and first cost lead to this conclusion. Other means of conveying heat have their field of application as a sole means of heating and as an adjunct to steam. In air conditioned structures, where the year-round use of some heat is desired, analysis may indicate the desirability of hot water for booster service. In these cases the use of steam is usually still indicated for the major heaters and miscellaneous standing radiation requirements... The development of reasonably priced controlled steam heating has substantially eliminated the objectionable overheating so prevalent ten or fifteen years ago. Buildings in which controlled heating was installed in the late twenties, still maintain an enviable record for fuel consumption and over-all economy."

Under Mr. Leopold's direction as consulting engineer, the "Controlled-by-the-Weather" Webster Moderator System was installed in 1929 in the 1616 Walnut St. Building, Philadelphia; and since then in the Evening Post Building, New York; 1700 Walnut St. Building, Warwick Hotel and Stern & Company Store, all in Philadelphia.

WARREN WEBSTER & CO., Camden, N. J. Pioneers of the Vacuum System of Steam Heating Est. 1898 : : Representatives in 65 principal U. S. Cities

**STEAM** Heats  
America . . .

## WASHINGTON BULLETIN (Continued)

belongs to Estey Foster, who is on the staff of W. V. Kahler, head of the Construction Bureau.

### More Aluminum—for Less

Back of the Aluminum Co. of America's reduction in prices of fabricated products sold to the government lies a story of economic theory versus production facts.

Politico-economic thinkers often have approached metals as metals. They have figured that if steel ingots can be converted into sheets or shapes or plates at, say, a 30% markup, why can't the same kind of markups hold in copper or aluminum? The explanation, of course, is that steel output has been measured in tons and aluminum in pounds, and for a very good reason: Use of aluminum, stacked up against steel, always in the past has been puny.

But aluminum, in the last two years has grown tremendously. The cut in prices to the government (deepest on sheet, castings, and forgings for aircraft) clearly reflects two principles: (1) That large-scale production multiplies unit profits, and (2) that the customer who makes possible the volume should share in the fruits.

### Boost for Grain Alcohol

A combination of the farm bloc and industrial alcohol interests is forcing WPB into a large-scale grain-alcohol program, to provide more butadiene for synthetic rubber. The farm bloc wants the plants built in the grain belt (BW—May 2'42, p7).

The industrial alcohol industry, cut off from its principal raw material—molasses—wants to cut into the program. Substantial conversion of the industry is probable before new alcohol plants are built in the grain belt. Meanwhile, every possible drop of alcohol will be wrung out of the whisky industry.

### All Is Not Gold . . .

Jubilation among the mining boys (BW—May 16'42, p7) about their victory over the War Production Board's indirect limitation on gold and silver mines proved premature. When the official order came along, WPB removed any arbitrary, rule-of-thumb distinction against miners of precious metals but as much as said: "Just try to get equipment."

The gold and silver miners need no longer have a 70% (by value) output of base metals to qualify for P-56 blanket priorities, it's true, but that means little. They still must be assigned a serial number to use P-56, and WPB doesn't intend to grant such numbers unless the

mine produces a substantial quantity of the base metals needed by industry.

● **One Small Catch**—At least, that's the intention. But remember: It's an election year, and western congressmen will bring a lot of pressure to bear.

### Fair Trade in Louisiana

Fair-trade protagonists who have been on the hot seat ever since a District Court in Louisiana ruled against the Mennen Co. (BW—Apr. 12'41, p24) can now cool off. The State Supreme Court, in a similar suit involving Pepsodent and International Cellucotton Products, has ruled that there's nothing the matter with Louisiana's law.

Here's the nub of the ruckus: Louisiana's fair-trade statute (like those of 15 other states) prohibits sales "except at the price stipulated." When the Krauss department store allegedly undersold the fair-trade price, Mennen (and later Pepsodent and International Cellucotton) haled the store into court.

But Krauss's strategy was nicely worked out. The store contended that none of the contracts were valid because, instead of stipulating a single price, they stipulated a minimum price. However, even if they had stipulated a single price, said Krauss, they'd be illegal, too, because the naming of one price and only one price is contrary to the anti-trust laws.

● **It's All Right Now**—Louisiana's Supreme Court has now held that the intention of the laws is not to fix prices, but merely to set a minimum. So contracts of that type are O.K., and the statute itself escapes conflict with anti-trust legislation.

### Capital Gains (and Losses)

Dr. Luther Gulick, hired by Donald Nelson to iron out the kinks in WPB's administrative organization, was one of F.D.R.'s experts on government reorganization. It was Gulick who prescribed that the President should have half a dozen executive assistants with a passion for anonymity.

It's rumored that the Army will take over another plane plant shortly.

Treasury is wondering what to do with thousands of old phonograph records furnished to radio stations to plug war bonds. It could tell the stations to trade them in on the latest boogie-woogie platters but that could be construed as private sale of government property.

Plans to move WPB's Bureau of Construction to New York are afoot again.

—Business Week's  
Washington Bureau

# FIGURES OF THE WEEK

## THE INDEX (see chart below)

### PRODUCTION

|  | § Latest Week | Preceding Week | Month Ago | 6 Months Ago | Year Ago |
|--|---------------|----------------|-----------|--------------|----------|
| Steel Ingot Operations (% of capacity)                                   | 99.2          | 99.6           | 97.6      | 97.0         | 99.9     |
| Automobile Production  | 21,800        | 21,450         | 21,720    | 92,990       | 127,255  |
| Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands) | \$44,317      | \$44,228       | \$29,851  | \$15,507     | \$14,125 |
| Electric Power Output (million kilowatt-hours)                           | 3,357         | †3,365         | 3,308     | 3,348        | 3,011    |
| Crude Oil (daily average, 1,000 bbls.)                                   | 3,484         | 3,544          | 3,545     | 4,087        | 3,784    |
| Bituminous Coal (daily average, 1,000 tons)                              | 1,894         | †1,877         | 1,879     | 1,826        | 1,532    |

### TRADE

|  |          |          |          |          |         |
|--|----------|----------|----------|----------|---------|
| Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars) | 79       | 83       | 83       | 90       | 86      |
| All Other Carloadings (daily average, 1,000 cars)                | 61       | 60       | 53       | 55       | 53      |
| Check Payments (outside N. Y. City, millions)                    | **       | \$6,938  | \$6,091  | \$5,029  | \$5,127 |
| Money in Circulation (Wednesday series, millions)                | \$11,861 | \$11,845 | \$11,624 | \$10,472 | \$9,155 |
| Department Store Sales (change from same week of preceding year) | +6%      | +8%      | -12%     | +14%     | +13%    |
| Business Failures (Dun & Bradstreet, number)                     | 215      | 216      | 224      | 203      | 286     |

### PRICES (Average for the week)

|   |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|
| Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)                           | 232.3   | 232.1   | 231.6   | 208.8   | 196.5   |
| Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100) | 153.4   | 153.7   | 153.9   | 145.4   | 139.3   |
| Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)   | 185.7   | 186.1   | 185.2   | 159.1   | 142.9   |
| Finished Steel Composite (Steel, ton)   | \$56.73 | \$56.73 | \$56.73 | \$56.73 | \$56.73 |
| Scrap Steel Composite (Iron Age, ton)   | \$19.17 | \$19.17 | \$19.17 | \$19.17 | \$19.17 |
| Copper (electrolytic, Connecticut Valley, lb.)                                | 12.000¢ | 12.000¢ | 12.000¢ | 12.000¢ | 12.042¢ |
| Wheat (No. 2, hard winter, Kansas City, bu.)                                  | \$1.14  | \$1.17  | \$1.14  | \$1.13  | \$0.92  |
| Sugar (raw, delivered New York, lb.)  | 3.74¢   | 3.74¢   | 3.74¢   | 3.50¢   | 3.37¢   |
| Cotton (middling, ten designated markets, lb.)                                | 20.08¢  | 20.20¢  | 20.26¢  | 16.39¢  | 12.71¢  |
| Wool Tops (New York, lb.)   | \$1.254 | \$1.270 | \$1.291 | \$1.283 | \$1.321 |
| Rubber (ribbed smoked sheets, New York, lb.)                                  | 22.50¢  | 22.50¢  | 22.50¢  | 22.50¢  | 24.38¢  |

### FINANCE

|   |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|
| 90 Stocks, Price Index (Standard & Poor's Corp.)                                    | 62.7  | 62.8  | 61.8  | 73.7  | 74.9  |
| Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)                          | 4.27% | 4.26% | 4.26% | 4.29% | 4.32% |
| U. S. Bond Yield (average of all taxable issues due or callable after twelve years) | 2.36% | 2.37% | 2.33% | 2.21% | #     |
| U. S. Treasury 3-to-5 year Note Yield (taxable)                                     | 1.04% | 1.04% | 0.97% | 0.90% | 0.73% |
| Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)                       | 1.00% | 1.00% | 1.00% | 1.00% | 1.00% |
| Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)                 | ½%    | ½%    | ½%    | ½%    | ½-¾%  |

### BANKING (Millions of dollars)

|   |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
| Demand Deposits Adjusted, reporting member banks                          | 25,241 | 24,854 | 24,725 | 24,151 | 23,846 |
| Total Loans and Investments, reporting member banks                       | 31,222 | 31,135 | 31,502 | 29,611 | 27,742 |
| Commercial and Agricultural Loans, reporting member banks                 | 6,669  | 6,649  | 6,948  | 6,633  | 5,604  |
| Securities Loans, reporting member banks                                  | 828    | 849    | 846    | 984    | 888    |
| U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks | 16,576 | 16,471 | 16,446 | 14,632 | 14,089 |
| Other Securities Held, reporting member banks                             | 3,645  | 3,656  | 3,724  | 3,662  | 3,700  |
| Excess Reserves, all member banks (Wednesday series)                      | 2,930  | 2,690  | 2,886  | 3,540  | 5,689  |
| Total Federal Reserve Credit Outstanding (Wednesday series)               | 2,612  | 2,572  | 2,415  | 2,263  | 2,239  |

\* Preliminary, week ended May 16th.

† Revised.

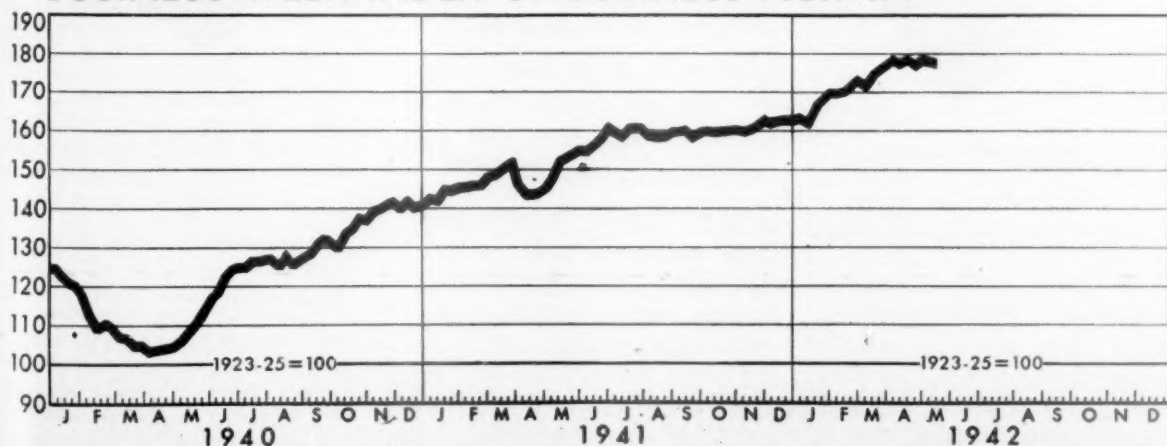
§ Date for "Latest Week" on each series on request.

\*\* Weekly figures no longer released.

# Not available.

‡ Ceiling fixed by government.

## BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





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**"Drop in some morning  
about 10:30, McGinnis,  
*and I'll show you a traffic jam!"***



"Sure, Mac, I know—you run up against parades, football crowds—and a World Series now and then. But we're handling traffic jams every day.

"This war is taking some of the traffic off your beat and putting it on mine—taking it off the streets and putting it on the telephone lines.

"And we're getting short of materials. The stuff that used to make switchboards and cables now goes to the shooting part of the war.

"But we've found the public good-natured and helpful just as you have. The trouble began with Hitler and will end when we finish with him."



**LONG DISTANCE** *helps unite the nation*



# THE OUTLOOK

## Price Rules Roll Over Profits

Business must now find its way through a price-controlled economy under ceilings designed to give only where they limit war production. "Roll forward" is new wrinkle.

The headline news was not the real news this week. Though the Russians battered away at Kharkov, and the Germans claimed Kerch, and people in the eastern states argued over "X" cards and "B" cards for gasoline rationing, the big event for business was that retail price ceilings went into effect.

For the first time in history, this country is operating in a price-controlled economy. And business men everywhere—at Smith's Corners or at Fifth Avenue and 42nd St.—are trying to make the best of this new order.

### But Wages Aren't Fixed

Standout fact is this: Profits will be squeezed. The Office of Price Administration this week reasserted that it will not permit retailers to pass on higher costs to consumers, that it's going to hold the retail price line, even if workers get higher wages. And William H. Davis, chairman of the National War Labor Board, indicated that some boosts eventually will be granted. So irresistible pay increases are bound to push up against an immovable price ceiling—with retailers', wholesalers', and manufacturers' profits in between.

Chairman Davis, however, did say that the NWLB would attempt to keep wage increases down to 50% of the increases in the cost of living since the last wage adjustment. And that puts a brake on rising operating costs. Also, so far as feasible, the Board will award wage boosts in war savings bonds. Thus, in theory, the pay advances will not add directly to the volume of excess purchasing power floating around. However, workers with accumulating savings, in the form of war bonds, are apt to expand their normal expenditures (reduce voluntary savings) so that the effect is likely to be a rise in spendable income despite the bond device.

### The "Roll Forward"

Moreover, so far as the manufacturer, wholesaler, or retailer is concerned, it makes no difference whether the payment is in bonds or cash. It adds to his costs; unless he can pass the boost along, his profit-and-loss account suffers.

OPA has instituted a new wrinkle in price administration. When the price ceilings were first announced, retailers talked incessantly of the "rollback,"

hoping they would get relief by having the price squeeze rolled back on wholesalers and manufacturers. But OPA has turned things around. Enter the "roll forward." And wholesalers and retailers get hurt.

This week OPA permitted packers of canned vegetables—asparagus, lima beans, corn, carrots, peas, spinach, tomatoes, and tomato juice, etc.—to raise their prices above the March ceilings, under the following formula: First the packer takes his price for the first 60 days of the 1941 pack; to it he may add 8% to compensate for increased operating costs; then he may add the actual increases in raw-materials costs.

The net result is that packers can go above the ceiling, but wholesalers and retailers are held to their March prices. So the "squeeze" on margins rolls forward to retailers, not back from them.

This roll-forward policy is far from capricious. The nation's "Food for Victory" program requires maximum out-

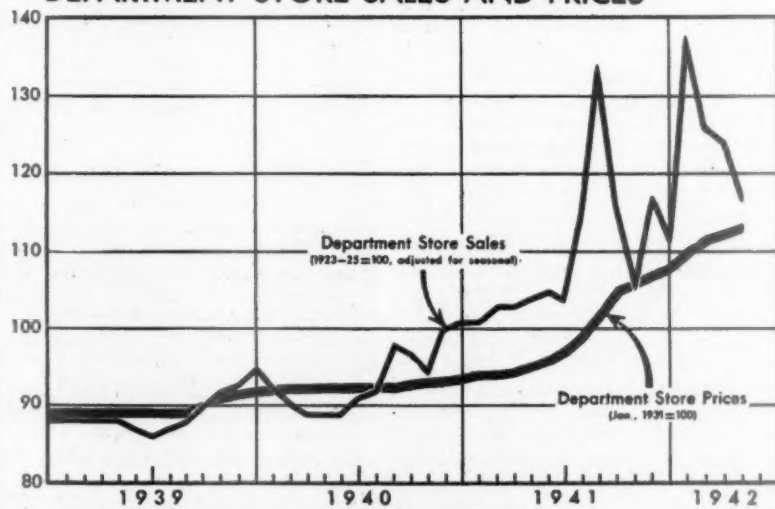
put of canned goods; OPA did not want prices to get in the way of production by forcing some packers to operate at a loss. And the Department of Agriculture went right along with Price Administrator Henderson. Secretary Wickard announced that the department would pay canners 92% of their individual gross ceiling prices if they got stuck with their packs.

### Basic Price Philosophy

This suggests a basic price philosophy: Whenever ceilings get in the way of war production or production essential for war, the ceilings will "give." But that means manufacturers' ceilings, not retailers'. Bearing this out, Henderson this week announced that the General Maximum Price Regulation did not apply to purchases by the Army, Navy, and Maritime Commission.

Meanwhile, the Business Week Index was off a trifle. Production is still being subject to a two-way pull—war output is rising persistently, but civilian-goods output is declining. Stove manufacture, for instance, was ordered curtailed this week (page 16). And no great gains in the Index are immediately in sight. However, as more and more metal-working plants are converted to war, some further sharp advances are likely—probably in late summer or fall.

IN THE OUTLOOK:  
DEPARTMENT STORE SALES AND PRICES



In April, department store sales declined for the third successive month. At the same time, prices continued to advance. Put the two facts together and you come up with the conclusion that actual physical volume of goods

sold declined more than the dollar figures show. No sharp reversal is likely, for civilian goods output is declining. Thus, even though ultimate consumers have plenty of money to spend, retailers will have less to sell (page 96).

# Army's Airlines

Civilian transport system finds itself taken over in spite of companies' best exertions to please the military.

Airline operators were grasping this week for the pieces of their transport system that remained after the Army's plane-requisition and service-curtailement order. They had tried so long to appease the plane-hungry Air Force that they could scarcely believe they had been swallowed.

As it occupied the transport field, the Army took about half of the system's planes, threatened to take them all at any moment. It cut out all but essential routes and schedules under a revision being worked out, at the Army's request, by the Civil Aeronautics Board. It announced early suspension of all but essential air travel, and implied eventual reservation of all air-mail space for war business.

• **Where the Planes Go**—The 340 transport planes on the system—nearly all Douglas DC-3 21-passenger-and-cargo ships with two 1,200 h.p. engines—are disposed in three groups.

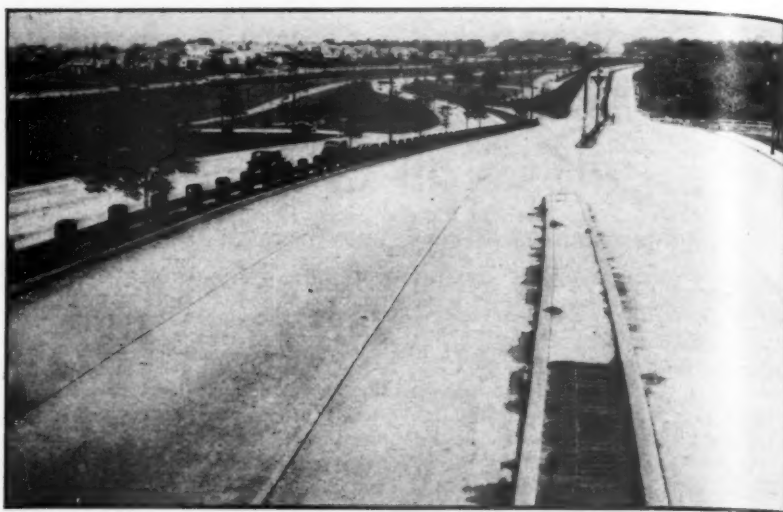
Seventy are being stripped to carry military traffic, to be flown by the operators under nonprofit contracts with the Army (the 25% seizure announced some weeks ago).

About 100 ships are being transferred outright to the Army Air Forces for operation by Army personnel in various services and commands.

The remaining ships continue for the present under airline ownership and operation, but will be considered "always available for emergency military missions."

• **Difference of Opinion**—Airline management has felt all along that it could contribute more to the war job if the system were left intact. Many war and civil officials agreed with them. One who did was Secretary of War Stimson. From inside CAB comes information that Stimson told the War Department to lay off, but that Roosevelt told it to lay on. The airlines had extended themselves to the utmost in an effort to please the Army. Some of the operators blame the obliging policy of Air Transport Assn.'s President Edgar S. Gorrell for progressive tightening of the Army's grip. They thought he should have stood his ground and argued that the lines would be more useful if left to their own devices.

• **Not in the Cards**—But any semblance of wartime autonomy for civil air transport was a forlorn hope, from the beginning. The system has, or had, a thousand pilots who knew how to take a cargo from point A to point B, day or



## SUNDAY DRIVERS—WHERE?

New York City's first gas-rationed Sunday was fully up—or down—to expectation of 500 independent gasoline dealers who met earlier in the week, claimed discrimination in gas allotments against the metropolitan area, then passed the hat (below) to raise funds for a "protective" fight. At noon

last Sunday, traffic on Grand Central Parkway had so dwindled that kids were taking over the slab for roller skating. Only 68,183 vehicles used the four bridges and two tunnels operated by the Port of New York Authority, a drop of 47% from the previous (unrationed) Sunday, and on Philadelphia's Delaware River bridge there were 58% fewer Sunday drivers.



night, rain or shine. It had a formidable fleet of the best wheelhorse airplanes in the world. And it had a maintenance system that kept each of those planes in the air for an average of 10 to 15 hours a day.

The Army was short of such equipment and its hurriedly trained crews were amateurs by comparison—in the matter of moving personnel and cargo. Military task commanders, hard pressed

to get vital jobs done, could not keep their eyes off the civil transport machine, ticking away and ready to go.

• **New Planes**—Months ago the War Production Board allocated a handsome quota of new planes to the airlines for 1942 and the first part of 1943. None of these planes has been delivered. Probably a lot of them will go to the airlines, but with camouflage paint and the Army star.



# Wage Policy—Piecemeal

Shipyard and Douglas fir decisions show that freezing is a long way off. NWLB prepares to plug OPA's price dike by urging another get-together of labor and industry.

Two important governmental wage decisions this week affecting shipbuilding and lumber workers indicated clearly that the Roosevelt Administration still is quite a long way from wage "freezing," but is pursuing instead a so-called "stabilization" course under which wage earners, for the present at least, may get raises which will compensate partially for increases in the cost of living since their last contract was signed.

• **OPA Sees Threat**—That such a course has little consistency and carries with it the threat of trouble is widely acknowledged. The OPA sees in it a leak in its

dike against inflation; government labor officials and unions see it as an invitation to Congress to legislate—an eventuality which they want to avoid at almost any cost.

The way out seems to be another "voluntary" agreement of the type that the Administration fondly favors. The last such "voluntary" agreement in the labor relations sphere resulted in the delivery of the National War Labor Board by a conference of labor and industry leaders.

• **Trial Balloon**—In Boston, last week, NWLB Chairman Davis hoisted a trial

balloon. In a little-noticed speech before the Industrial Relations Council of Metropolitan Boston, he said: "I would be glad to sit down at a table with the leading labor and employer representatives in America, with nobody else, and state this [wage] problem and try to work it out with no pressure on us but the pressure of the problem. I think the problem is so great and so immediate and so compelling that those leaders of labor and industry would work out a rational solution."

Davis felt that substantial accord could be found on the pay issue. He regards the impasse over union security, which forced the premature adjournment of the December labor-management parley (BW—Jan. 3 '42, p47), as ended with acceptance of the principle of a union maintenance-of-membership clause.

• **Prompt Response**—The Davis feeler drew an almost immediate approval

## The Gas Ration—An X Quantity

Until Tuesday it was a cinch that gas-rationing would go nationwide. If it does now, it will be because Leon Henderson changes the President's mind and talks down frantic politicians scared by the fiasco in the East. They don't want any part of the public's rancor turned on them.

The attempt to ration gas on the seaboard backfired so completely that Washington is still slaphappy. Now the rulers of the war economy realize that the people will let them take the sugar out of their coffee, the frills off their drawers but that they are hell on wheels when it comes to siphoning the gas out of the family tank.

The President told his press conference that the gas shortage should be treated as a national problem but then qualified this statement by explaining that he didn't regard rationing as necessary in many areas fed directly by pipe lines. In areas where the piped supply of gas is plentiful but depends on tank cars and trucks for wider distribution, such facilities should be shared with other areas in which supplies are actually short, the President said. Roosevelt mentioned the over-use of tires as a reason for rationing but didn't put much emphasis upon it.

Maybe he's playing 'possum because of feared political repercussions. Certainly his remarks left much to be filled in. He was even more vague regarding the prospects for eventually relieving the gas situation on the Atlantic by pipe line construction

and interconnections according to the pattern proposed by the Petroleum Industry War Council (BW—May 9 '42, p17). Although Ickes this week gave the industry the green light on this program, with one minor exception, construction of three of the nine pipeline projects is contingent upon allocation of new steel by the War Production Board. The other six involve extensions, connections and reversals, utilizing second-hand equipment and pipe dug up from other locations. Ickes' office is preparing a detailed report for submission to WPB on the steel requirements of the three important new lines—the one from East Texas to Salem, Ill., and the two from Texas to the New York-Philadelphia area. The Salem line alone would measurably relieve the situation on the seaboard.

For the failure of the rationing program thus far to achieve the orderly conservation which both Ickes and Henderson had expected, various factors are blamed. At the head of the list are grabby motorists, including congressmen, but the inadequacies of the system are only slightly less culpable. Bootlegging can and does flourish under the system because it doesn't permit of any effective enforcement. As long as there is no checkup on sales by gasoline dealers or on consumption by truckers, farmers, and industrial users, who can divert supplies to private automobiles, the American public is invited to indulge its favorite pastime, the pastime of trying to "beat the

game." How to regulate the flow of gas to the essential users in such fashion that pleasure motorists can't muscle in is a problem that must be solved before any new system is put into effect.

Faulty censorship has also played a part in the rebellion against rationing. Public opinion can't be marshalled against the gas hogs as long as the names of X and B card-holders are withheld. Again, censorship has deprived the public of essential facts about the situation—tanker sinkings and total deliveries on the East Coast, for example—and until people recognize the enormity of the problem, they can't be expected to conserve.

Normal consumption of gasoline in the 17-state Eastern dry-belt has been estimated at 600,000 barrels per day. Hence, the 50% cut in deliveries to filling stations would make available approximately 300,000 barrels per day. However, since agricultural and industrial users are receiving their normal allowances of gasoline without restriction, drivers of the 10-, 200,000 cars operating in the restricted area will have to get along with much less than half their average amount of gas. Rough estimates indicated about 200,000 to 250,000 barrels a day would be available during the initial six weeks of rationing, if the formula works. But the formula is not working, and it looks now as though supplies of gasoline would run out as a result of bootlegging and an over-generous distribution of X and B cards.

from Eric A. Johnston, new president of the U. S. Chamber of Commerce.

Cheered by what was considered "favorable business reaction," the Administration labor experts cocked an ear toward the unions awaiting their reception of the new conference idea, principally toward Cleveland where the Steel Workers Organizing Committee was in session.

Of the week's two big government wage decisions, the most important affected more than 500,000 shipyard workers in the Atlantic, Pacific, Gulf, and Great Lakes yards, whose pay was brought up to a uniform level of \$1.20 per hour for skilled mechanics. This action was taken by labor, management, and government representatives at a national shipbuilding conference in Chicago.

• **Part in War Bonds**—Although the decision adds an estimated \$100,000,000 to the cost of the shipbuilding program, and writes finis to the idea of regional wage differentials which the government considered the very heart of the shipbuilding stabilization agreement when it was first conceived, one important safeguard was taken to reduce the inflationary aspect of the wage increase. Union representatives agreed to accept the increased pay in war savings bonds, which are redeemable after 60 days. Union leaders pledged that their members would not cash them except for extreme need.

• **How Rates Fared**—The shipbuilding wage agreement brought the Gulf rate up from \$1.07 per hour, and the pay in the other yards up from \$1.12 per hour. Although the increase in the Gulf yards was 13¢ per hour, and 8¢ in other yards, it was less than was due the workers, except in Atlantic Coast and Great Lakes yards, under the prewar shipbuilding stabilization contract providing automatic increases hitched to the cost of living.

The Gulf Coast pay scale would have gone to \$1.34 per hour if the old contract had been adhered to, and the Pacific Coast rate would have advanced to \$1.27 per hour. There was no boost due the Atlantic Coast and Great Lakes workers.

• **Wire from Roosevelt** — President Roosevelt stopped the labor delegates from holding out for the full increase with a sharp wire declaring that full increases which the agreement called for would conflict with his anti-inflation campaign (BW—May 9'42, p. 7). The union leaders also acceded to his request to do away with premium rates for Saturday, Sunday and holiday work as such. The new contract provides straight time for the first five shifts, and 40 hours, with time and one-half for the sixth shift, and double time for the seventh regular shift in a work week.

The other wage ruling of importance affected 25,000 Douglas fir workers, who

operate on a minimum of 75¢ an hour. They won a 74-cent hourly wage increase from a National War Labor Board arbiter, Pendleton Howard, University of Idaho law school dean. This is one of four lumber cases on NWLB's docket which altogether affect 75,000 Douglas fir workers, and it appeared probable that all of them would get raises.

• **Important to Other Industries**—These wage boosts are particularly important because NWLB is approaching rulings on the \$1-a-day wage increase demands of the C.I.O. in autos and in Little Steel—and in steel, the prevailing minimum wage of 72½¢ an hour is lower than in either shipyards or lumber before the recent boost. If increases are granted, in any part, in either steel or autos, it is probable that other industries will have to follow suit. The precedent, already pointed, will have become firmly entrenched.

These decisions, and the renewed agitation of both the A.F.L. and C.I.O. for higher pay to offset increases in living costs, brought home to the NWLB, to Henderson, and to other leaders in the administration the fact that they must act quickly to iron out the wage problem to prevent further inflationary developments.

• **Definition of Stabilization?**—An explanation from President Roosevelt of

what he meant by stabilizing the remuneration received by individuals for their work was hoped for by some NWLB members, although Chairman Davis, in his Boston speech, said, "We must not talk about freezing or the definition of stabilization."

"What you mean to do in general is one thing," said Davis. "But to apply it to particular cases is another thing. If anybody talks about freezing wages—well, there ain't no such animal. We talk glibly about wage levels in America. Wages in America are just about as level as the Himalaya Mountains. There is not any wage level to be frozen."

## New Conversion

Stove industry is first to go on part-civilian, part-war basis, with plant size and availability of labor governing closings.

Ever since the big production program got under way, the problem of how to get war work out of an industry and provide at the same time for continued manufacture of necessary civilian goods has been tossed around. In autos, in mechanical refrigerators, vacuum clean-

## Simplification of the Cookstove

Manufacture of domestic cooking appliances and above-the-floor heating stoves for civilian use is restricted after July 31 to simplified, lightweight types, described as follows:

• **Gas Ranges**—Not more than four top burners, one baking oven and one broiler, no storage space or accessories; total weight of metal not over 100 lb.

• **Gas Hot Plate**—Not more than three burners; total weight of metal not over 15 lb.

• **Coal or Wood Range**—One baking oven, no storage space, no warming closet, no accessories; weight of metal per unit limited to 70% of average weight of metal used per unit in year ended June 30, 1941.

• **Combination Range (Gas and Coal or Wood)**—One baking oven, one broiler, no storage space or accessories; total weight of metal not over 350 lb.

• **Kerosene and/or Gasoline Range**—Not more than three top burners, one baking oven, no storage space or accessories; total weight of metal not over 90 lb.

• **Kerosene and/or Gasoline Stove**—Not more than three burners, no storage space or accessories; total weight of metal not over 45 lb.

• **Kerosene and/or Gasoline Table Stove**—Not more than three burners; total weight of metal not over 18 lb.

• **Portable Oven**—No accessories; total weight of metal not over 17 lb.

• **Domestic Heating Stove**—Such above-the-floor heaters are limited to a metal weight per unit of not over 70% of average weight of metal used per unit in year ended June 30, 1941.

No cooking appliances may be equipped with any iron or steel cover tops or lids to cover cooking surfaces when not in use.

• **Banned**—Prohibited accessories include closets, shelves, aprons, clocks, cast broiler pans, thermometers or any other instruments, attachments or appurtenances (except thermostats, reservoirs, water backs, and portable ovens) not essential to top-burner cooking, oven baking, or oven broiling.

After July 31 no manufacturer may produce more than one model of the permitted-type gas range. Manufacturers of the permitted type gas range must comply with the requirements for performance, operation, and construction set forth in the American Emergency Standard Approval Requirements (Z21. ES 1942) issued by the American Gas Association.

ers, washers and ironers, radios and phonographs, some recognition was given to essential civilian supply by permitting production of a reserve before the industry was shut down for conversion to war work.

Not until WPB's order covering domestic cooking and heating stoves has the problem been attacked by continuing civilian manufacture in some plants while stopping it in others. Issued May 14, that order cuts the big companies out of civilian production entirely after July 31, throws the business to small companies, except those located in designated labor shortage areas.

• **Previous Questions**—In making this separation between big and little companies, WPB didn't prescribe for the industry the answers to questions which previously had been raised in connection with "concentration" of the manufacture of civilian goods:

Will the stoves manufactured carry the brand names of the firms released for war work?

Will the released firms get any part of any profits realized by their former competitors?

Will the released companies maintain sales organizations for the distribution of stoves made by the continuing companies?

These and other questions appear to be either answered or washed out by the attitude of the big companies.

• **A Clean Break**—They tried to hold on but finally decided to cut off clean—figuring that, after all, they are big enough to get back into the stove business when their war goods business shuts down. And in the meantime they apparently don't want their brands on "cookers" from which all the glamor has been stripped.

Small manufacturers who continue in the business presumably will put on their own brands, distribute through their own channels. WPB apparently won't object, however, if they "invade" the outlets of the companies converting to war work. The continuing companies may retain their own models if that's possible under WPB's description of permitted types, the curtailment in iron and steel use per unit, and the requirements of the emergency standards set up by the American Gas Assn.

• **Industry's Proposals**—The industry didn't capitulate to the concentration order without a fight. It advanced two proposals. The essence of one was a horizontal cut, modified slightly by size of company. The trouble with it was that the output which WPB was willing to allow as essential for civilian purposes—about 2,000,000 units a year—was too small to enable all companies to operate profitably. Normal production is 7,500,000. Big companies might be willing to continue at a loss to keep their names before the public but small companies couldn't take the rap.

The industry's other proposal was that all firms run out their inventories of materials in hand, then quit in a body, with the understanding that, if more stoves were needed in six, eight, or ten months, WPB either would designate certain firms to make more, or put out a proposal for competitive bids for the business. The bugs in that proposition were that, by that time, the big companies would be converted to war work and many of the small firms either converted or out of business, their capital and labor forces dissipated.

• **Branch's Draft Prevails**—So the order drafted in WPB's Plumbing and Heating Branch eventually prevailed. Top-side officials didn't have any better

ideas. Nobody seemed to be much impressed with the British practice in the concentration of civilian manufacture, and the industry seems to be taking it with rather admirable fatalism. WPB officials say that issuance of the order doesn't preclude consideration of questions raised after it becomes operative.

Of the 245 firms which comprise the industry, 92 must quit after July 31—30 because their factory shipments totaled \$2,000,000 or over in the year ended June 30, 1941; 62 firms (with output under \$2,000,000) because they are located in the designated tight labor markets. This leaves 153 of the small concerns to turn out about 2,000,000

## SUBSTITUTES SHOW

To help manufacturers develop articles for civilian use which can be made from non-essential materials, the Contract Distribution Division of WPB in San Francisco has worked up a "War Substitutes Clinic," the first of its kind according to Ray W. Hawksley (right), manager. Some of the items developed on the West Coast from substitute materials (and shown in the display) include redwood textile fiber doghouses and mail boxes of rolled Masonite, pick handles of California mountain oak, plastic building hardware, bags made of tow from California seed flax (in place of jute), ceramic cooking utensils, redwood drain pipes, glue from chicken feathers and blood, fruit buckets from wood and other



nonmetallic materials. When possible, supplies of substitute materials are provided for manufacturers who want to try them with their own products.





units a year, roughly divided 55% and 45% between cooking stoves and heating stoves.

• **Looking after the Small Firms**—The greater vulnerability of small firms as compared to big ones has long been recognized by WPB. Its original order (L-23) curtailing production of cooking stoves went lighter on the smaller companies. In orders bringing the manufacture of other consumers' durable goods to an end, the smaller companies have been allowed a greater proportionate output during the run-out period.

The relative position between the smaller companies that will continue making stoves is maintained by limiting monthly consumption of iron and steel by each of them to 70% of the monthly average used in the year ended June 30, 1941, in the case of cooking stoves; to 50% for heating stoves.

• **Where It Hurts**—The concerns really hurt by WPB's order are the 62 firms in 39 towns in 15 states listed as labor shortage areas. In ordering these smaller concerns to shut down by July 31 to relieve the labor supply situation, WPB found also a solution for the problem created by the fact that shutting down only the big companies would leave far too much production. Those which can't get into war work are out of luck. A subsidy to cover their maintenance expenses is being discussed but it is probably a will o' the wisp.

Until July 31, both the large and small companies in labor shortage areas are permitted to continue operations at a rate limited by the requirement that their consumption of iron and steel from Jan. 1 to July 31 in making cooking stoves won't exceed more than six times the average monthly amount used in the year ended June 30, 1941. For the manufacture of heating stoves from May 15 to the closing date, the firms shutting down July 31 are allowed three times the average monthly amount used in the year ended June 30, 1941.

• **Less for the Survivors**—Firms that will continue in business after July 31 aren't

allowed as much metal as those bowing out. From May 15 on, their monthly consumption of iron and steel in making cooking stoves is limited to 70% of the average monthly amount used in the year ended June 30, 1941; in making heating stoves to 50%.

Until July 31, all manufacturers are permitted to make all present models. After July 31, the firms continuing in operation are confined to the permitted types and to the weight reduction of 30% in both cooking and heating stoves.

Production between May 15 and July 31 is expected to total 800,000 units—500,000 cooking stoves, 300,000 heating stoves. Present stocks are estimated at 1,200,000—cooking 660,000, heating 540,000. The total of 2,000,000 stoves is expected to satisfy essential requirements for at least a year.

• **After July 31**—Of the annual production of 2,000,000 after July 31, about 75% will be available for essential civilian use. All manufacturers are permitted to continue without restriction the production of repair and replacement parts.

WPB figures that its order will save about 350,000 tons of iron and steel a year for war needs, release about 25,000 workers for war industry.

## Oil Flows by Rail

Tank car shipments of petroleum products mount until they now total three times the highest estimate a year ago.

Shipments of petroleum and petroleum products to the East Coast by sea may have fallen off seriously, but there is partial compensation in the unexpectedly successful overland movement of petroleum products in tank cars.

• **First a Rehearsal**—Last summer brought a shortage scare which gave federal officials and company executives a

dress rehearsal for the actual shortage now affecting 17 eastern states. During the 1941 conferences, cynic Harold Ickes, Coordinator of Petroleum, joined some of his aides in hooting when railroad spokesmen said they could move 200,000 bbl. of oil each day by tank cars.

Last week this same Mr. Ickes announced that tank-car movement of oil to the East Coast had soared to an all-time high, averaging 640,000 bbl. daily for the week ended May 2. By May 12 the daily average was being reported at 652,000 bbl. So enthusiastic is the coordinator over the showing that he has raised his sights and is asking the railroads to increase the haul to 800,000 bbl. daily.

• **Goal Now 800,000**—Total requirement of the region is around 1,300,000 bbl. daily. Hence if the railroads meet their new bogey of 800,000 bbl., the reversed and revised pipelines (BW—May 9'42,p17), plus barge and tank-truck expansion plus the East's own oil production could come pretty close to delivering the remaining 500,000 bbl. The Assn. of American Railroads indicates that the 800,000 bbl. will be attained within a few weeks.

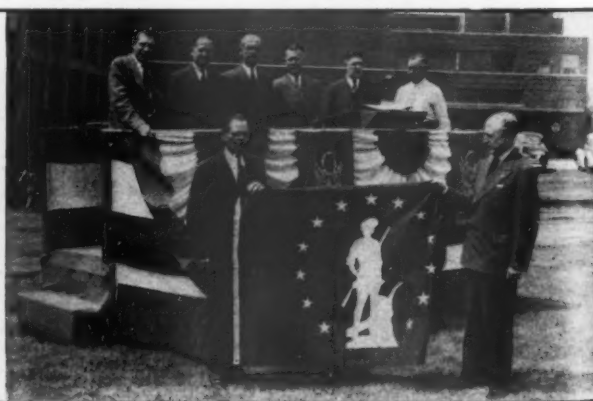
Last week Joseph B. Eastman's Office of Defense Transportation helped out by clamping iron-clad controls on tank-car movement throughout the country. Beginning June 1, no railroad is allowed to move loaded tank cars without government permission. There are exceptions, the principal being exemption of cars used for carrying petroleum products eastward.

• **Contracts Ignored**—A Section of Tank Car Service is set up within the ODT to direct matters. All companies with tank cars in their possession must stand ready to deliver them to any point designated by the Tank Car Service, regardless of existing contracts. Owners are protected from damage claims under such contracts.

These orders in effect pool all tank cars. Next move will be to take about 17,500 tank cars from short-haul move-



Where 90% of a firm's employees participate in the purchase of War Savings Bonds through payroll allot-



ment plans, the Treasury Department awards Minute Man Flags. Two firms celebrated their awards at flag-raising

ceremonies—Airtemp Div. of Chrysler Corp., Dayton (left), and Paterson Parchment Paper Co., Bristol, Pa.

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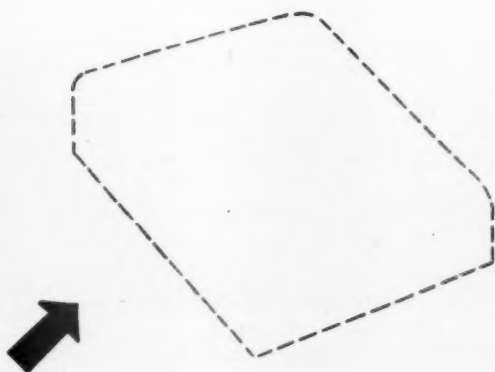
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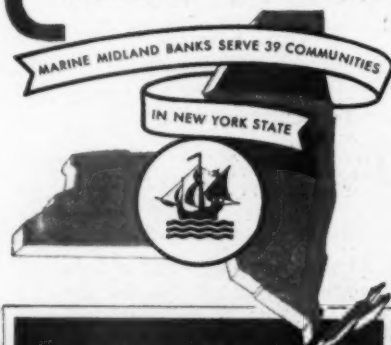


*This is where we'd ordinarily put a picture of the Model M Comptometer. Because these extraordinary times emphasize the importance of COMPTOMETER METHODS so strongly, we've omitted the machine in an effort to call your attention to that emphasis!*

*"Do they have the know-how to handle our work in that little upstate New York company?"*



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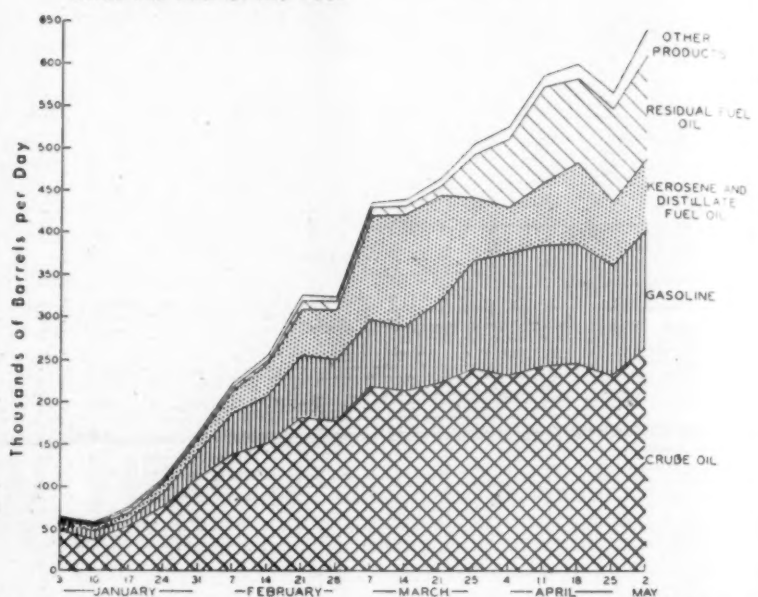
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## EASING THE GAS SHORTAGE

Rail Shipments to the East Coast Up 1000%  
Since the First of the Year



Courtesy Oil & Gas Journal

© BUSINESS WEEK

ments and enlist them in the long haul from southwestern oil fields to the East Coast. If oil company terminals can handle this increase, the roads say that the desired daily deliveries can be accomplished.

• **Statistical Possibilities**—About 45,000 cars are now taking oil to the East; an additional 2,225 cars are carrying California petroleum products to the Northwest (at the rate of 29,000 bbl. daily). Total of tank cars in the country is around 143,000. Of these over 11,000 are owned by railroads and employed in essential service such as supplying fuel oil for locomotives.

Reserving a minimum of equipment for nonpetroleum products now moving in tank cars (molasses, chemicals, vegetable and animal oils, milk, wine), there remains a maximum of 120,000 cars suitable for oil. Plans call for a total of 64,725 cars for emergency shipments of petroleum. The 120,000 maximum will not be invaded any more than necessary since many of the commodities now being handled are almost as vital to the war effort as fuel oil, gasoline, or lubricating oil.

• **Fits Pipeline Plan**—Expansion of petroleum shipments by tank car is an expedient while seeking metal for new pipelines. It meshes with the pipe program since the immediate determination is to kick oil as far to the east as possible through a quick reshuffling of existing lines, thereby cutting down the distance remaining to be covered by tank car, tank truck, or barge.

One result of the shift in rail hauls will be greater reliance on tank trucks for local territories. Normally the higher

cost of tank-car transport limits these vehicles to low-mileage trips from refineries to industrial customers, bulk gasoline stations, and the like. The switching of tank cars to the long routes means that tank trucks must take up the slack in local deliveries.

• **Triple the Promise**—A year ago the railroads were moving only 2% of petroleum requirements to the East Coast. Right now they are delivering nearly 50%, and the new figure of 800,000 bbl. daily would raise the ratio to nearly 65%. Thus the roads have accomplished three times what they promised last year and expect to quadruple it.

How do they do it?

First they made intensive studies of routing to bring into service every available pair of rails and to find short cuts. Checks were made to insure the quickest possible unloading time, the fastest possible return of the empty. Today about 950 loaded tank cars daily roar eastward through Buffalo, and approximately the same number hurry westward empty toward the midcontinent fields.

• **High-Speed Trains**—Through Indianapolis the movement is a thousand cars daily each way. These cars move in solid trains, on high-speed schedules usually applied only to perishable freight. Some day the roads will have time to tell the story of where they found the extra engines to handle an emergency traffic piled on top of peak war freights.

Teamwork in loading, unloading, and switching has been developed between the carriers and the oil companies. Speedups in terminals and at the throttle have done marvels. Formerly a car taking on oil at the pipeline terminal in



# The whiskey expert who flunked his exams



We placed two samples of whiskey before the expert.

He sniffed. He sipped. He pronounced one sample "excellent;" the other only "fair."

But both glasses had been filled with the same whiskey!

Maybe a head cold had thrown his taste off a bit. But that little

incident convinced us that *one* man's opinion *only* can never be a reliable guide in pleasing the tastes of thousands of people.

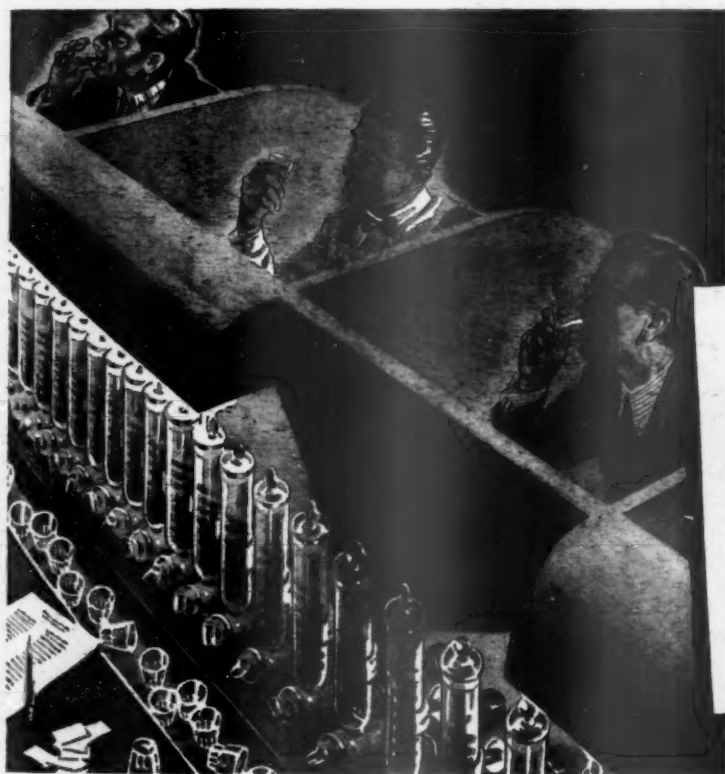
So we decided to let those thousands write their own ticket. Each month, some fifteen hundred people from every walk of life—the Calvert Consumer Jury—pass judgment on Calvert products.

Of all of our whiskies, the Jury

has continually chosen the more highly refined whiskey; the whiskey of more delicate body, of more subtle flavor. That is the whiskey to which Calvert has dedicated its resources and skill.

And because of our vast reserves of 151 superb whiskies and 102 fine, mellow grain neutral spirits, Calvert can always produce the ideal combination of whiskey qualities. You have it today in the magnificent Calvert blends.

Is that merely a claim? No. It's a fact. It's a fact backed up by the American public, which buys more Calvert\* than any other luxury whiskey.



## Calvert

The Institute  
of Blends

The "Consumer Jury" gives Calvert a true cross-section of American tastes to guide the making of Calvert products.

Calvert Distillers Corp., N. Y. C. BLENDED WHISKEY 86.8 Proof. \*Calvert "Special": The straight whiskies in this product are 4 years or more old. 27½% straight whiskies, 72½% grain neutral spirits. Calvert "Reserve": The straight whiskies in this product are 5 years or more old. 35% straight whiskies, 65% grain neutral spirits.

Lima, O., took 12 days to get to Boston and back. Today 100 cars are moving daily from Lima to Boston and they make the round-trip in six days. This 50% reduction in turnaround time is typical of many of the long hauls to the East from fields in Texas and other oil-producing states.

• **Service But Not Profit**—However the dollar side of the picture isn't so bright. Price Administrator Leon Henderson, has been sitting heavily on prices while higher cost of tank-car transport hiked the costs of delivery to eastern markets. In normal times it cost 53¢ to bring a barrel of East Texas oil to New York by tanker, 67¢ by pipeline, \$2.37 by rail (BW—Jul.19'41,p17).

Emergency rail rates allowed by the Interstate Commerce Commission have relieved the burden of rail transport somewhat, but the oil companies declare that they still are not allowed to charge prices sufficient to cover additional costs. It is estimated that these companies absorbed \$12,000,000 in extra transportation costs in March, \$14,000,000 in April. During April they had to take on the chin a daily \$600,000 difference between railroad freight and basic tanker rates. By the gallon oil company loss on petroleum moved by tank car is estimated at 2¢ to 2½¢.

On Apr. 28 OPA met protests with its third increase in prices to compensate for the rail rates. Range of the advance in different products was from 16.8¢ per bbl. to 50.4¢. It is said that the OPA should allow for cost factors other than transportation, that the new costs have reached a point where many independent distributors, lacking the vast reserves of the major companies, may be forced to quit business.

One proposal that is being advanced calls for a government subsidy, which would be used to reimburse the oil companies for all transportation costs above 40¢ a bbl.

• **Cars Are Leased**—Most of the tank cars typically are owned not by the railroads or the oil companies but by separate corporations. Biggest is the Union Tank Car Co. with 39,000 cars. Next is General American Transportation Corp. Such firms supply specialty equipment for moving bulk liquid commodities not suitable for standard rail freight cars, the tank cars being leased by the users.

Union Tank Car was one of the old Standard Oil (N. J.) family. It was cut loose by the antitrust decision of 1911. But Union Tank remains true to the petroleum industry, having contracts with many Standard Oil units. Its main business is hauling products from refineries. During 1933 Union Tank bought many tank cars owned by the oil companies, at the same time signing contracts for use of the equipment. Similar contracts have been made by General American, as when it acquired 4,662 tank cars from the Texas Co. in 1935.

## Steel for War

**Ban on 400-odd products for civilians simply formalizes situation in which priorities have preempted supply.**

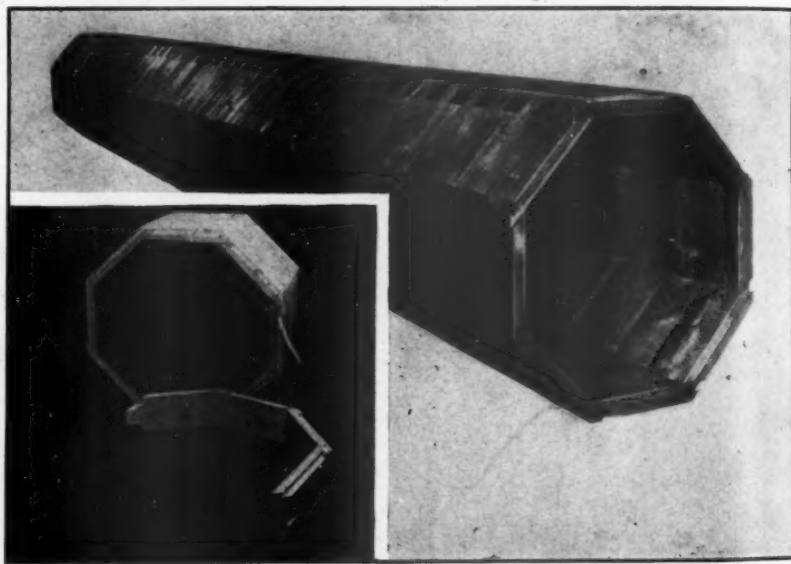
When the War Production Board clamped the ban on future production of 400-odd items of common civilian use containing iron or steel (BW—May 2'42,p5) it merely made official the blackout on civilian products which has been creeping upon the steel industry for a year. To the processing and fabricating plants which thrive on household demand for egg slicers, jelly molds, door chimes and snow shovels, the order, of course, spells either oblivion or a quick shift to war items. But to the basic steel industry, which has rolled nothing with a preference rating of less than A-1-k in recent months anyhow, WPB's edict simply establishes as U. S. war policy a production chart which was already well bounded by priority ratings.

• **Steel Becomes Vulnerable**—Thus, after a year of what may be called government control, steel has reached a point where additional pressure from the new boss no longer causes upheavals in mill schedules or operating techniques. Now fully mobilized for the "war of

survival," steel has embarked upon an era of record-shattering production surpassing its most optimistic hopes—but not without forebodings of the vulnerability of steelmaking equipment pushed steadily at 99% of capacity.

Carnegie-Illinois is fairly typical of the degree to which the large producers have swung their facilities to war output. When, in August, 1941, the industry was "selling" steel instead of filling orders, Carnegie-Illinois' accounts show that only 30% of its orders carried war priority ratings. By the end of the year, priority-rated business was taking 65% of output due in great measure to the formal entrance of the United States into the war. Today, 99% of the orders on the "Big Steel" subsidiary's books carry the imprimatur of the WPB and the armed services. The same is true with minor variations of all the producers of heavy steel, while those in the light category, whose normal products were not adaptable to armaments, had to grapple with conversion problems before "enlisting for the duration."

• **Shifts in Quality**—Increasing ingot output by a million tons the first four months of 1942 over the same period in 1941, with corresponding acceleration of the finishing processes, meant more than just pushing men and machines a little harder each month, although the human factor embodied in WPB Chairman Donald M. Nelson's labor-manage-



### FOR DURATION ONLY

If "duration" isn't longer than ten years or so, American Rolling Mill Co. is prepared to keep customers supplied with culverts made of wood instead of steel which should last until Armco plants get back to peacetime production. Made of short lengths of wood which would ordi-

narily be discarded, the prefabricated sections may be joined together in the field by unskilled labor. In case of temporary arms plants, wood culverts will serve the expected life of the projects. When used in permanent installations, postwar replacements may be made by threading corrugated metal pipe through the wood culvert or by jacking a metal pipe around it.



## Here Rubber DID THE WORK OF RIVERS

Once large-scale lumbering operations were confined to the near vicinity of rivers on which the logs could be floated to mill. But as the river valleys were logged out, stands of timber back in the hills far from any stream became increasingly valuable.

Lumbermen tried bringing out the logs by truck but the rough, steep mountain trails made tire costs sky-high. Then a Goodyear Truck Tire Engineer suggested using the Goodyear Hard Rock Lug tire, a massive brute of a tire specially developed for hauling in mines and quarries.

It proved to be the answer. Its deep-cut "gear-tooth" lugs gave sure-footed traction on steep hillsides. Its heavily armored tread resisted cutting and snagging. So today many logging trucks in the Northwest are equipped with these long-wearing, cost-reducing Goodyear tires.

If you are certified to buy truck tires, there is a Goodyear specially designed for your operation that will give you the lowest-cost-per-mile service. See your Goodyear dealer today.

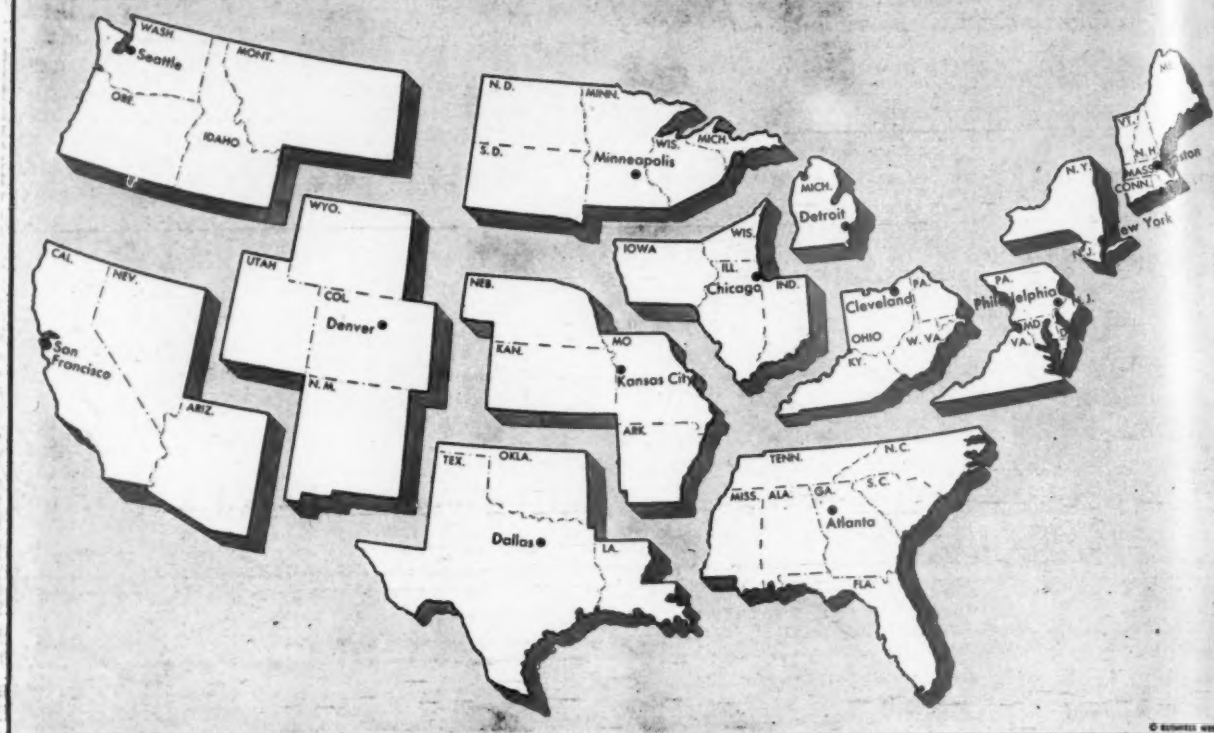
*If you are not eligible under Tire Rationing Regulations ask your Goodyear dealer about our Tire-Life Extension Policy. It's an expert tire conservation plan that can add many thousands of miles—perhaps a year's longer service—to your truck or passenger car tires.*



**R THE GREATEST NAME IN RUBBER**



## WPB REGIONALIZES ITS ADMINISTRATIVE SETUP



Establishment by WPB of 13 regional offices, attached directly to the Division of Industry Operations, represents another attempt at effective decentralization of its day-to-day operations. A Bureau of Field Operations has been struggling with the job since February but WPB's numerous divisions, branches and bureaus have run their field work pretty much to suit themselves. To eliminate confusion and conflicts all WPB's contacts with the field now must be made through the regional directors. They will supervise the operations of 100 priority or contract distribution district offices and consolidate all field operations. L. E. Scrivens, former head of the Bureau of Field Operations, now abolished, becomes a deputy director

under James S. Knowlson, director of Industry Operations. Policy and planning work will remain in Washington, but the object is gradually to transfer to the regional offices the authority and responsibility for application of WPB orders affecting industries in their territory. The regional offices are located in Boston, New York, Philadelphia, Atlanta, Cleveland, Chicago, Kansas City, Dallas, Denver, San Francisco, Detroit, Minneapolis, and Seattle. Regional directors so far appointed are Orville H. Bullitt, Philadelphia; Ernest Kanzler, Detroit; Frank H. Neely, Atlanta; John C. Virden, Cleveland; Joseph L. Overlock, Chicago; Walter H. Wheeler, Boston; John P. Maguire, New York; and Leslie A. Miller, Denver.

ment committees is showing results in the zeal with which blast furnace and rolling mill crews are eclipsing old production records. It meant enlarging steel-making facilities to produce not only the quantity but the quality of steel needed to prosecute a war. It meant exploration of the raw materials field with emphasis on new sources. It meant maintaining existing facilities at the peak of operating performance.

Expansion of plate-producing facilities to meet the No. 1 needs of the war effort—ships, tanks and railroad cars—is one illustration of the industry's shift to a war economy. In January of this year, 26 new mills were building and most of these were wide plate mills or semifinished mills to feed them. Great Lakes Steel in Michigan and Carnegie-Illinois in Pennsylvania converted some continuous sheet and strip mills to plate

production. Bethlehem, Carnegie-Illinois and Tennessee Coal, Iron & Railroad Co. in Birmingham added new plate mills. Sheffield Steel started two new plate mills in Texas and three open hearth furnaces to supply them.

• **More Open Hearth Capacity**—Fifty new open-hearth units either have been built or are under construction, including Sheffield's three at Houston, a dozen for Carnegie-Illinois at Homestead, Pa., and others for Bethlehem on the east coast and for Columbia Steel on the west.

The pressing need for alloy steels has projected 30 new electric furnaces into the picture. Some of these bring their owners into an entirely new field. A. M. Byers Co., one of the new entrants, has specialized in wrought iron; Copperweld Steel Co.'s plant at Warren, Ohio has been a user, but never until now a maker, of electric steel. Some 25 new

blast furnaces are being erected to supply pig iron to the steelmakers. Although their location is a military secret, it is permissible to report, for purposes of showing the breadth of distribution, that there are at least four in the East, three in the Pittsburgh district, eight in the Midwest, two in the West, and four in the South.

Whether these combined facilities will meet the test of all-out war remains to be seen. All the industry can tell you is that it is turning out steel ingots at the unprecedented rate of 88,000,000 tons a year (last year's tonnage was 82,800,000) and expects to keep it up with the equipment on hand and under construction.

• **Raw Materials Needs**—But a key factor in keeping this pace is raw materials—iron ore, scrap, coke. The industry needs 88,000,000 tons of ore before



## WAR-AND RESEARCH

Research will win this war . . . through the development of new offensive weapons.

Research will determine the course of post-war expansion.

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"Since nineteen hundred six the 'E' has been the traditional Navy symbol for excellence—for a job 'Well Done.'"

"This is an honor not lightly bestowed, and one to be cherished by you and your associates."

Secretary of the Navy Knox

## Thanks, Mr. Secretary! We Prize the **NAVY "E" AWARD** for Excellence

...and We Rededicate Ourselves  
to the Service of America

In a recent message, the Secretary of the Navy informed the Broderick & Bascom Rope Co. of its selection to receive the coveted Navy "E" Award. This honor—symbolized by the Navy "E" burgee, a pennant bearing the anchor and "E"—is official recognition of outstanding performance in production.

To Navy men and their ships, since 1906, the letter "E" has literally stood for "Excellence" in a task assigned; winning it has been a much-sought mark of distinction. Now bestowed upon industry for special achievement in serving the Navy, the "E" is properly shared by the plant and all its employees. The new Navy "E" pennant flies near our American Flag, and individual employees proudly wear "E" lapel buttons.

In acknowledging this award, with deepest thanks, the Broderick & Bascom Rope Co. appreciates that it carries the obligation to surpass past records today and in the future. Through times of peace and war, since 1876, we have given our best to the manufacture of wire rope for the nation and its industries. At this new milestone we again dedicate our full energies and resources to the cause for which America fights and the Victory that will be won.

**BRODERICK & BASCOM ROPE CO., ST. LOUIS**

Branches: New York, Chicago, Houston, Portland, Seattle. Factories: St. Louis, Seattle, Peoria

Manufacturers of

**YELLOW  
STRAND**

**Preformed WIRE ROPE**



freezing weather closes the door to the Minnesota and Michigan ranges and the Office of Defense Transportation stands ready to regulate use of all line boats if necessary (BW—May 16 '42, p. 17) to guarantee delivery. April ore movements aggregated 7,789,182 tons, 12% over April of 1941, and the pickup since then has pushed 1942 shipments almost 25% ahead of last year.

What sharpens the need for iron ore is the scrap shortage—and the gloomy prospect that scrap supplies are hardly likely to increase as fast as needed. Lacking scrap for electric and open hearth furnaces, the industry will be obliged to resort more and more to pig iron as the foundation of its steel output.

● **Coke in Plenty**—Coke is in good shape. More than 7,000 beehive ovens in the Uniontown-Connellsville area have been aroused from a 20-year sleep. In addition, 1,200 new byproduct coke ovens will have been added to the nation's total when the present building program is concluded, and this will supply not only coke for the blast furnaces but gas to melt the steel and vital by-products for other war industries.

Alloying elements, necessary in the manufacture of high strength steel for armor plate and shells, are an ever-menacing bottleneck in the raw materials field. WPB has exerted tight controls on nickel, chromium, manganese, tungsten, vanadium and other vital elements. Yet record demand and inadequate receipts of import metals keep the need acute. Joint efforts of the Metals Reserve Corp., Reconstruction Finance Corp. and Defense Plant Corp. to increase our supplies, as well as some brilliant laboratory work by the industry's metallurgists to devise new combinations of alloying elements and even substitutes, takes some of the heat off the supply problem.

● **Alloy Pinch**—Chromium affords a typical example. The RFC and Metals Reserve are collaborating on a California deposit which will produce 15,000 tons of chrome concentrates annually. New deposits in Alaska will deliver 20,000 tons of ore per year. In Montana, Defense Plant and Metals Reserve have arranged for production of 60,000 tons of concentrates at one plant, to be increased to 150,000 tons later this year. This plant is to be duplicated and a third will produce 60,000 tons. An additional 65,000 tons will come from other western states. Previous peak production in the U. S. was 92,400 tons.

Significant shifts in type of product have been made since priority regulations, rather than customer demand, began to dictate production schedules. In a recent month, plate production was clocked at 135% of theoretical capacity; woven wire fence, primarily a domestic and agricultural commodity, was produced at a rate of 30% of capacity. Going back to February, 1941, a month



before the first government price control affecting the industry, you find plates at 88% or 47 points lower, and wire fence at 43%, or 13 points higher.

• **Wartime Shifts**—The same influence is noticeable down through the catalog. Heavy products generally are up, lighter products down. Elimination of auto manufacture for the duration shoved sheet production down 30 points from 107.6% in February, 1941, to 77.5% in February, 1942. Heavy structural shapes and hot rolled alloy bars are up 10% and 25% respectively.

The peculiarities of wartime demand have taxed some types of rolling equipment—notably plate—while depressing others, such as rails, sheets, wire and pipe, thus accounting for the partial unemployment and thin pay envelopes which have hit many operations.

• **Relief**—Some measure of relief has been available to those peacetime operations found to be convertible to wartime needs. Methods have been devised, for example, for spinning bombs from seamless tubing. Airframes are taking seamless mechanical tubing which is used in peacetime for such items as steel garden furniture. From special alloy black plate, normally made into tin cans, comes a new aircraft "skin."

• **Taxes vs. Profits**—Now assuming definite shape in the industry's sights is the effect of government control mixed with rising taxes and operating costs on the profit structure. Last year profits were up 13.3%. But the curve began to flatten out during the last quarter of 1941 and now has nosed downward—10% in the first quarter of 1942. How much deeper the curve will go depends on three main factors: wages, now one of the two hot issues before the War Labor Board in the "Little Steel" cases; taxes, sure to go up, and prices, on which ceilings were imposed in December.

## HOME-MINED MANGANESE

American production of manganese, deoxidizing agent in steel production, will be up to a safe point before present stock piles are exhausted, according to conclusions published this week by the American Society for Metals.

By 1945, it was concluded from a study in collaboration with WPB officials and the U. S. Bureau of Mines, domestic production, relying largely on high-cost, low-grade ores, will be up to 650,000 tons annually, which, "plus reasonably expected imports, will give us the tonnage necessary for our steel industry, operating at capacity, year after year, indefinitely."

The society said our "ace in the hole" is the Chamberlain shale in South Dakota, one of the world's largest deposits though strictly low-grade, containing at least 100,000,000 tons of metallic manganese. Other deposits being developed are in Montana, Nevada, and Minnesota.

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THROUGH BUTTER  
... PHILLIPS SCREWS  
TAKE THE HARD WORK  
OUT OF FASTENING"



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It really is easy to drive Phillips Recessed Head Screws. You get a better "grab" on the screw because the driver point and Phillips recess make a snug fit. There's no danger of the driver slipping, so you don't have to spend a good part of your effort holding it in—you just keep turning. And there are more jobs on which you can use power drivers.

Translate this ease of driving into time and then time into dollars. An operator can, on the average, cut fastening time in half. Figure it out for yourself—then add the savings you get from using fewer screws (better holding power often reduces number or size of screws needed), spoiling fewer screws (no split screw heads) and eliminating the cost of resurfacing screw-driver scars.

The Phillips Screw is certainly the modern fastening method—which means "better" and "more economical." Any of the firms below can supply you.



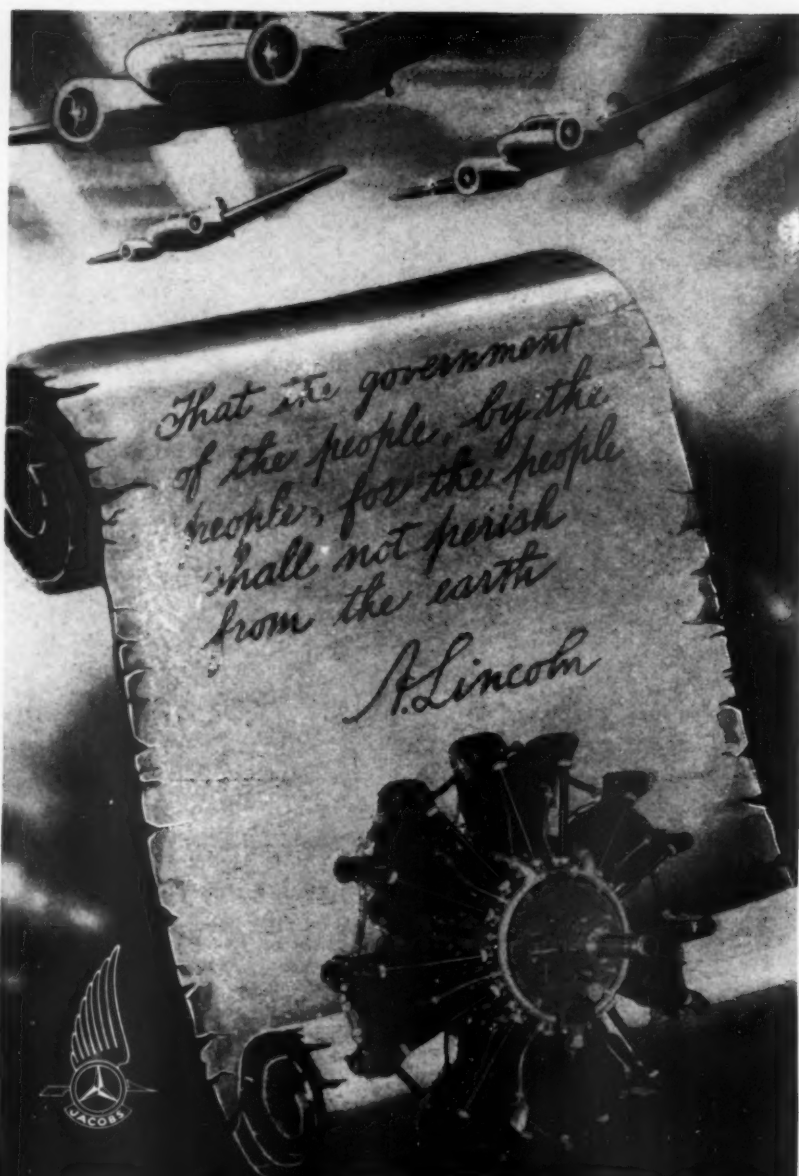
### PHILLIPS RECESSED HEAD SCREWS

GIVE YOU *2x/1* (SPEED AT LOWER COST)

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• SCREWS WITH LOCK WASHERS

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Central Screw Co., Chicago, Ill.  
Chandler Products Corp., Cleveland, Ohio  
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The Corbin Screw Corp., New Britain, Conn.  
International Screw Co., Detroit, Mich.  
The Lamon & Sessions Co., Cleveland, Ohio  
The National Screw & Mfg. Co., Cleveland, Ohio

New England Screw Co., Keene, N.H.  
The Charles Parker Co., Meriden, Conn.  
Parker-Kalon Corp., New York, N.Y.  
Pawtucket Screw Co., Pawtucket, R.I.  
Phool Manufacturing Co., Chicago, Ill.  
Russell, Burdick & Ward Bolt & Nut Co., Port Chester, N.Y.  
Scovill Manufacturing Co., Waterbury, Conn.  
Shakopee Inc., Chicago, Ill.  
The Southington Hardware Mfg. Co., Southington, Conn.  
Whitney Screw Corp., Nashua, N.H.



# JACOBS ENGINES

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*Training the Bomber Pilots of the United Nations.*

JACOBS AIRCRAFT ENGINE CO.  
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## Dyes—Then, Now

Indictment of U.S. firms recalls industry's vigorous fight against foreign domination during and after the last war.

Francis Patrick Garvan, Assistant Attorney General and Alien Property Custodian during the latter days of the Wilson Administration, often said: "The only thing the United States got out of the World War was a dyestuff and synthetic organic chemical industry; but it was worth all it cost."

Were he still alive and in Trenton, N. J., last week, that redoubtable champion of American chemical independence would certainly have taken vigorous issue with his present-day successor, Assistant Attorney General Thurman Arnold.

• **Trust Buster's Charges**—In commenting on a federal grand jury's criminal indictment of eight large chemical corporations, including du Pont, Allied Chemical & Dye, and American Cyanamid, Mr. Arnold said that their connivance with the German dye cartel "has not only resulted in high prices to the American consumer, but has also restricted the full development of the chemical industry which is so essential to our war effort."

The Jersey jury's indictment under the Sherman Act included charges that the defendants named had engaged in world-wide conspiracy to suppress competition, that they had allocated world markets, that they had put limits on the dyestuffs sold abroad by United States manufacturers, and that they had kept small companies in this country from becoming manufacturers of dyestuffs.

• **Something of a Surprise**—The nature of the charges proved something of a surprise, even to well-informed circles in the chemical and textile industries. It has long been common knowledge that the domestic dyestuff producers have exchanged patents and other information with their foreign competitors, including the German cartel, but there has been no apparent evidence of the foreign domination that so greatly disturbs Mr. Arnold.

On the contrary, the infant American industry of the days of the last war has now grown to the extent that it not only supplies the entire domestic market, but exports a sizable surplus.

• **1914 vs. 1940**—From a production in 1914 of only 6,619,729 lb. by seven firms, its output rose in 1940 to 127,834,000 lb. by 54 producers. The average price of all dyes produced in the United States was \$1.26 per lb. in 1917 and 62¢ in 1940. Official figures are lacking for 1941, but the trade esti-

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estimated a further increase of about 40% in production and 45% in value. Today American dye producers make about 2,000 different colors in plants worth over \$150,000,000 and with approximately 12,000 employees, as contrasted with 528 in 1914.

Despite heavy demands for dyes to be used in Army uniforms and for other military purposes, the industry has generally been able to supply both the war and the essential civilian needs.

• **Munitions Angle**—Some rationing of civilian supply has been necessary in recent months because of the shortage of certain chemical raw materials and intermediates that are also used in munitions. Aniline, for example, is the base for approximately 250 different dyes, but it is also the raw material for dimethyl aniline used in military explosives.

Toluol for TNT, and phenol for picric acid and ammonium picrate (Explosive D) are likewise important products to the dye makers, who have greatly expanded their production to meet the war program. Thus, both directly and indirectly, the dye industry is an essential producer of munitions.

• **Last War's Difficulties**—All this stands out in sharp contrast with the situation in this country when American textile, paper, and leather mills were dependent on foreign dyestuff producers. Early in the last war, dangerous shortages of chemicals and medicinals threatened to shut down many industries and cripple the work of hospitals and physicians.

At one time in 1915 it was feared that more than 400,000 textile workers might be thrown out of work. Salvarsan, Paul Ehrlich's specific remedy for syphilis, was being rationed to our Army Medical Corps at \$90 per ounce. Official Washington appealed to official Berlin, and with the latter's help an American vessel, the Matanzas, ran the British blockade from Rotterdam and landed early in 1915 with a million-dollar cargo of dyes and medicinals.

• **Saving the Postage Stamps**—Later Britain agreed to grant free passage to the Holland-American liner Nieuw Amsterdam with 600,000 lb. of dyestuff consigned to the United States Government Printing Office. Otherwise, we would have been forced to use black and white postage stamps in this country.

The next exciting development was the sudden appearance in lower Chesapeake Bay on July 16, 1916, of the German supersubmarine Deutschland. It docked at Baltimore to unload a most valuable cargo of dyes which later were "salted" ten pounds to one to sell for almost a hundred times normal prices. The whole performance was repeated on Nov. 6 when the Deutschland nosed in at New London, Conn., with a similar cargo. That, however, was the last big foreign shipment, and since then Amer-

# CONTROL



**T**HOUSANDS of horsepower speed the fighter plane to combat... batteries of machine guns and cannon arm it for the kill... yet powerful motors and heavy armament can-

not win a single "dog-fight" unless *control* instruments function perfectly.

This simple principle of control as the critical factor governs all operations at Lebanon—beginning with the writing of shop orders. These orders are not treated as routine detail. They are made into comprehensive "working plans" through which each department in the plant gains a thorough understanding of the customer's requirements. Lebanon shop orders replace chance with *control*.

Control... and control again... control wherever possible... that is the premium Lebanon pays for the exceptional integrity, soundness and quality of Circle 1 Castings... the castings which safeguard such reputations as those of Westinghouse and Jones & Lamson.

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**BUSINESS WEEK**

*"Cover-to-cover, the facts indicate that it is one of the most USEFUL magazines in America today. Wherever you find it, you find a business man . . . well informed."*

ica has been on its own in dyestuff production.

• **Native Product**—By 1920 more than a hundred American plants were turning out 88,263,776 lb. of dyes, valued at \$95,613,749—all made from native raw materials and intermediates. The early products of the industry were sometimes lacking in fastness and variety, but these difficulties were overcome as its chemists mastered the complicated technique which had so long been Germany's monopoly.

During the war, our government had taken over more than 4,500 German-owned patents covering hundreds of improved dyes and medicinals. Rather than auction these off to the highest bidder, as was then the practice in the case of enemy-owned factories, Mr. Garvan made a unique proposition to President Wilson.

• **Foundation Formed**—The Garvan proposal was that the American chemical industry be permitted to set up a quasi-public corporation to buy all these patents and then to license them at a uniform fee to any bona fide American company. The President agreed, and thus the Chemical Foundation, Inc., was formed. A half-million dollars of its stock was subscribed by practically the entire American chemical industry. The whole lot of German patents was purchased for \$250,000 and a like sum was set up to prosecute any attempt to import the products they covered.

Royalty payments from the widely held licenses were used to finance research and educational activities directed toward the ultimate objective of building a self-contained, independent American chemical industry.

## WPB Coiffure

**Crackdown on bobby pins clinches new hairdo for duration. Hairpins will be available, but makers aren't too happy.**

Washington, fast supplanting Hollywood as the nation's style center, appears to have doomed the ladies' long shoulder hairdo for the duration by clamping down hard on the manufacture of bobby pins.

Because of WPB order L-104, written to conserve about 6,000 tons of steel in the hairpin and bobby pin industry, the American woman is left the choice of letting her hair grow and putting it up old-fashioned-like, having a manish cut, or indulging in one of the new feather wave cuts.

• **High-Carbon vs. Low-Carbon**—In effect, the order demands that during the next three months only  $\frac{1}{4}$  as much steel go into pins as was used during 1941, actually a 50% cut. No wire but low-

carbon steel may be used, and none over .035 gage. Length is chopped to 2 in., and no packages containing more than 99 pins may be sold. This knocks out bulk sales to hairdressers. Gage formerly went to .055, and length to 4 in.

The low-carbon clause is the sticker. The only really suitable metal for bobby pins is high-carbon stuff, which has enough spring tension to make the pins stay put. There are no known substitutes, and fasteners of low-carbon steel will be next to useless, manufacturers believe.

• **Hairpins Can Carry On**—Unless the order is rewritten or changed radically, the production of hairpins should remain normal because of the choice, seemingly allowed, of shunting the allotment of steel for bobby pins to hairpins. There is nothing in the order affecting enameling, an important process in the manufacture.

Bobby fasteners are affected by another factor: The machines which make them can produce cotter pins, needed by the millions in the arms program. One Philadelphia manufacturer has already made the conversion, and nine others in the country are expected to fall into line quickly. The hairpin machine, a single purpose tool, can bend nothing but hairpins.

• **Marketing Factors**—The hairpin industry was saved by the bobby pin when women began to cut their hair. Since then, both in money and bulk, the bobby pin has been the better seller. But the most consistent turnover has remained in hairpins, millions of which tumble annually to sidewalks, bathroom, and bedroom floors and get swept away. The hairpin has been the main dependence of the beauty shops. The bobby fastener, which has a tenacious grip, hangs on for use again and again. Domestic hairpin production has been further bolstered by the loss of German and English imports.

Sanitary laws in about 30 states, which forbid the beauty-shop girls to use hairpins a second time, have also boosted sales considerably.

• **Bring Your Own**—WPB insistence on individual packages has already affected beauty-shop procedure. Unable now to buy in pound lots (formerly 15¢), the operators are now asking customers to bring their own pins, or buy packages of 80 for a dime (they cost the operator a nickel).

The new feather-cut wave, which still requires hairpins for setting, but none after the customer steps from the shop, is really a child of industry and civilian defense. Women in industry soon recognized long bobs as dangerous.

The hairpin makers are not too happy about the new bob, which needs fasteners only for setting but they figure anything is better than the mannish cut, which would wreak havoc in their industry.

*Test it, tear it down, inspect it part  
by part, reassemble and test it  
again—that is the thorough way  
in which these giant engines are  
turned out today, to power our  
aircraft for Victory . . . —*

## Dress Rehearsal for **WAR!**

**WHEN** this flying power plant actually gets its wings—it must be ready for star performance. Thousands of machine parts must function with infinite precision and control.

Thanks to our nation's exacting machine tools, engineering skill and workmanship, it will perform perfectly and produce unfailing power in the air.

Behind every operation—from the machining of individual parts right through to actual flight—efficient lubrication is vital.

From more than 2300 wholesale supply points in the U. S., Texaco supplies quality lubricants for each operation—and to insure their effective and economical performance Texaco's specialized engineering service is available to all industry.

**THE TEXAS COMPANY**

—in all  
48 States



## A Large Order

WPB branch has the job of passing on problems of service industries, most of which lack claims of wartime urgency.

With an estimated 2,900,000 service institutions in the country, the new Services Branch of the War Production

Board promises to become one of the biggest and busiest sections in WPB.

This branch, headed by Nathaniel G. Burleigh, won't spend all its time turning down applications for priority assistance; rather it will have jurisdiction over such things as beauty parlors and dog shows—and will do plenty of turning down in the long run.

• **Branch's Functions**—The new branch provides a central place where the amusement industries, financial and business organizations, retail and whole-

sale concerns, office buildings, hotels, restaurants, personal service industries, and repair shops can make any necessary contacts with WPB. Previously a restaurant operator, for instance, would have to go to one place if he needed parts for his air conditioner, to another place for his dishwashing machines.

The branch also has jurisdiction over manufacture of office machinery and service machinery (laundry and shoe repair machines and the like), which are included partly through the accident

## WAR BUSINESS CHECKLIST

### Washington's Significant Orders on Materials and Prices

• **Air Conditioning**—Installation, sale, or lease of new air-conditioning or commercial refrigerating equipment is forbidden by Order L-38 except on order of a war agency or on a specific priority rating of A-9 or better. Starting July 1, producers may build in any quarter units equal either to the number of preferred orders on hand or the number delivered during the preceding quarter. From May 15 to July 1, production may equal orders on hand or deliveries on preferred orders during April 1-May 15.

• **Tires**—Wholesale prices of new passenger car tires and tubes are established by regulation 143 at March levels (or levels established from Exhibit C of the tire return plan) plus 16% of April retail prices.

• **Textiles**—Supplement 3 to the General Maximum Price Regulation exempts bids made under Navy requisitions 489, 495, and 497 for 4,959,000 yards provided the prices do not exceed \$2.575, \$3.85, and \$5.475 a yard for 11 oz. flannel, 16 oz. melton, and 30 oz. kersey respectively.

Sheet manufacturers have been asked by WPB not to make colored bedsheets after July 1.

• **Shearlings**—Shearling prices (f.o.b. shipping) point are established by regulation 141 at \$2.05, \$1.90, \$1.00, and 40¢ per skin for grades 1 to 4. Definite prices per square foot are established for tanned shearlings.

• **Cashews**—Purchase of cashew nut shell oil for manufacture of brake linings is forbidden by amendment of order M-66 except for aircraft brakes and on military orders. Oil from inventory may be used in linings on A-2 ratings.

Amendment of order M-147 forbids importation of cashew nuts except upon authorization from WPB.

• **Glass**—Existing designs of glass containers are frozen by Order L-103 except as new designs may be approved by WPB, either to allow for conversions from other containers to glass or to substitute a lighter or more easily produced design for a present one.

First schedule under L-103 limits production of distilled spirits bottles immediately to quart, 4/5 quart, pint, or half-pint sizes. Until Sept. 1, weights of 22, 20½, 15, and 10 oz. are permitted; from Sept. 1 to Jan. 1, weights are to be only 20½, 19, 13½ and 8½ oz. After Jan. 1, all bottles must be built to four standard designs.

Schedule B limits bottles for malt beverages to 12, 32, and 64-oz. sizes in definite weights. After Jan. 1, all must be in one of eleven standardized designs.

• **Lumber**—Sales of softwood "construction lumber" by producers with an average daily production during the past three months of more than 5,000 board feet per day are forbidden for 60 days after May 13 (BW-May16'42,p7) except to the Army, Navy, or Maritime Commission or to their contractors for use in plant expansion.

• **Steel**—Melting of alloy iron and steel is subjected to WPB allocation by amendment of M-21-a, which requires each producer to file monthly melting schedules. No "national emergency" alloys shall be melted or shipped except on a rating of A-3 or better, and no other alloys except on A-1-k or higher.

• **Copper**—No brass mill, wire mill, or foundry copper products may be delivered except on an A-1-k rating under an amendment to M-9-a.

Suppliers of maintenance and repair parts to copper and brass mills are granted an A-1-c rating to replenish inventories after filling orders rated A-1-c or better, under amendment to P-106.

Technical changes have been made in Schedule 20, scrap, and M-9-c, copper.

• **Roads**—Highway projects which do not require the purchase of any steel are exempted from the provisions of construction conservation order L-41 by general authorization L-41-600. Material requirements for such projects must be reported to state highway departments and by them to the public roads administration.

• **Production Requirements Plan**—Use of application form PD-25X (by com-

panies doing an annual business under \$100,000) is discontinued after May 25 due to simplification of PD-25A.

PRP specialists are being assigned to WPB regional offices to help manufacturers in preparing applications. They will examine forms before mailing to Washington, advising what proportion of materials probably will be allocated.

• **Exports**—Orders for export for commodities listed in M-148 take preference over any other order, no matter what its priority rating, if the export order is accompanied by a license from the Board of Economic Warfare.

• **Other Priority Actions**—Production of antifreeze from alcohol by any producer is limited by L-51 to quotas to be set "from time to time" by WPB. Quota will probably be 50 per cent of 1941 rate at the outset. . . . Acrylonitrile, a constituent of synthetic rubber, is placed under allocation by Order M-153. . . . L-110 forbids manufacture or delivery of electroplating and anodizing equipment except on A-1-j ratings assigned on PD-1A forms. . . . Amendment of M-60 permits food manufacturers to use, during June and July, a half, and in August and September, a quarter, of the high lauric acid oils used in the corresponding period of 1941. . . . All inventory restrictions have been removed from phosphate rock by order M-149. . . . Amendment of P-109 permits aircraft parts manufacturers to use an A-1-a rating for operating supplies. . . . L-30 has been amended to permit manufacture of coal hangers with steel-wire hooks. . . . L-26-b forbids farm equipment manufacturers to dispose of inventories made useless by L-26 except on A-1-k ratings as to alloy steels or on A-3 ratings as to other steel and iron, or to RFC subsidiaries or a steel mill.

• **Other Price Actions**—Prices of non-ferrous foundry products are frozen by regulation 125 at levels of Oct. 1-15. . . . Technical changes have been made in the following schedules: 136, machines; 114, woodpulp; 30, wastepaper; 46, relaying rail; 88, petroleum; 4, iron and steel scrap.



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# Lick your WARTIME PACKAGING PROBLEM with these features!



**GREASE-  
PROOF**



**FURNISHES  
POISON  
GAS  
PROTECTION**  
(applications should be submitted  
to Government agencies  
for approval)



**WATER-PROOF  
and MOISTURE-  
RESISTANT**



**DOES  
NOT  
SHRINK**



**MEETS  
REQUIREMENTS  
OF B.A.I.**  
(for meats)



**PROTECTS  
AGAINST  
MOLD, GERMS  
and  
INFESTATION**



**DOES NOT DRY  
OUT OR BECOME  
BRITTLE WITH  
AGE**



**Has  
LOW PERMEABILITY  
for oxygen and nitrogen;  
is permeable to carbon  
dioxide**



**CEMENTS  
EASILY AND  
PERMANENTLY**



**NOT AFFECTED BY  
EXTREMES OF  
TEMPERATURE  
OR  
HUMIDITY**

## Suggestions—

To replace cans: fibre cartons lined with grease-proof, water-proof Lumarith Protectoid. To package tank parts and plane parts: grease-proof Lumarith Protectoid combined with other materials. For special protection: Lumarith Protectoid laminated to asphalt kraft paper provides a grease-proof, water-proof, vapor-proof guard. Want suggestions for your problem? Write today.

# LUMARITH PROTECTOID

REG. U. S. PAT. OFF.

## CELANESE CELLULOID CORPORATION

Celanese Celluloid Corporation, 180 Madison Ave., New York City, a Division of Celanese Corporation of America. Sole Producer of Celluloid\* (cellulose nitrate plastics and dopes) . . Lumarith\* (cellulose acetate plastics and dopes) . . Lumarith Protectoid\* (transparent insulating, laminating and packaging material) . . H-Scale\* (synthetic pearl essence) . . Lindol\* (plasticizer and lubricant additive) . . Samson\* and Safety Samson\* Film Bases . . and Vimlite\* (shatterproof window material) . . \*Trademarks Reg. U.S. Pat. Off.

that they were previously under Burleigh's control.

• **A Hard Fight**—The great bulk of service organizations can claim little direct connection with the war, and they have a hard fight to make whenever they need machinery or scarce materials. But there is no disposition in the Services Branch to tell these marginal industries arbitrarily that they'll have to get along on what they have.

Some priorities are being approved—all the way from the clear-cut cases like a bank in a war-expanded community that needs another posting machine, or a commercial laundry that must maintain its equipment, to borderline cases like giving a movie operator materials to keep his projector running.

• **Conversion Job**—Like all WPB's industry branches, the Services branch is assigned responsibility for the conversion of its industry. Except in the tacked-on office and service machine sections, this is pretty theoretical at present. But luncheon conversation around the branch is running to the possibility of getting some war production out of the multitude of repair shops of all sorts over the country.

Unquestionably, this would involve some scheme of ripping machines out of the little shops of a community and centralizing them somewhere.

• **Personnel**—Assisting Burleigh in running the branch is O. G. Sawyer, supervisor of purchases for Duke University. Arthur Sanders, from the office of the Comptroller of the Currency, heads the office machinery section, and L. L. Frey, industrial engineer for General Electric and other firms, the service machinery section.

Christopher J. Dunphy of Paramount Pictures heads the amusement section; James D. Vail, Evanston (Ill.) banker and broker, the financial and business services section; S. J. Dunaway, Expello Corp., the retail and wholesale trade section; Frank A. Duggan of Statler, the office buildings, hotels, and restaurants section; Orval A. Slater, of the National Institute of Dying and Cleaning, the personal services section; and Dewey M. Crim, Crimes Store and Fixture Co., Memphis, the repair and general services section.

## SAVING WORKERS' TIRES

California Shipbuilding Corp., Los Angeles, has worked out what appears to be an effective method of saving tires. Last week the plant arranged with property owners along the Pacific Electric Railway, which serves the shipyard, for use of certain lots for free parking of workers' cars. Employees who live at a distance from the railway drive their automobiles to the nearest car stop, park, then board trains for the shipyard. The corporation maintains an attendant at each lot.

# THE WAR—AND BUSINESS ABROAD

## Imports Via RFC

Subsidy plan revealed by Henderson emphasizes extent to which U. S. foreign trade has become government monopoly.

Foreign traders had fresh evidence this week of the degree to which the government now controls their business, and while the battles at Kerch and Khar'kov (page 7) captured popular attention, it was this continued expansion of federal regulation which concerned business men.

Leon Henderson, Price Administrator, frankly told the House Ways and Means Committee that since the United States had no control over price levels in countries from which it buys, Washington was preparing to subsidize "essential" imports. The Reconstruction Finance Corp., he explained, will be used to buy these products at whatever prices are necessary to obtain them and will sell them inside the country at

whatever losses OPA officials think necessary to maintain the domestic retail price ceilings. Henderson made it plain to the committee that he did not believe that the United States should purchase abroad under this subsidy plan any items which would compete with domestic products.

The United States, since the war production program got under way, has been buying about \$2,000,000,000 worth of foods and raw materials a year from foreign countries, where, in nearly every case, prices are rising drastically.

• **Determinants**—What subsidy will be necessary to bring these commodities into the country under the price ceiling program will depend on various factors. Among them will be the amount of collaboration Washington receives from the supplying countries, the extent to which the Administration thinks it advisable to let prices rise in certain Latin American countries in order to stabilize or maintain their economies, and the economies that can be effected by mass purchases through a single, government-appointed agency.

Also to be considered is the extent to



## WAR LOAF FOR BRITAIN

Everybody in Britain is eating the same kind of bread as a result of the government's recent wartime decision to create a single grade of flour with some whole wheat for the entire country. Purpose: to maintain a high standard of nourishment on mini-

mum supplies of wheat, all of which must be imported. National Bakehouses (above) have been touring Britain since Apr. 1 telling audiences why "national flour" is necessary and how it can be used for cakes as well as bread. Outside, a poster tells passersby to go inside and hear the story because "it means a lot to the merchant navy."

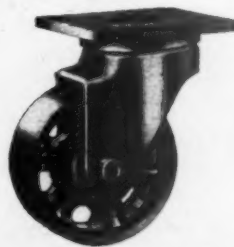


**DESIGNED FOR  
PEACE  
BUT SERVING IN  
WAR**



**COLSON UNIVERSAL DRUM TRUCKS**

The fastest, safest means of handling any barrel or drum. No lifting in either loading or unloading. Rugged, all-steel, welded construction that stands hard, continuous use.



**COLSON CASTERS FOR EVERY PURPOSE**

Big, husky sizes for loads up to 1500 pounds per caster. Smaller sizes, too, in over 2000 different models — A CASTER FOR EVERY PURPOSE.



**TRUCKS AND PLATFORMS** that move materials and parts—easily, quickly. The Colson line has a wide range — hand trucks, tank trucks, rack trucks, platform trucks and special models of a wide variety. All equipped with long-wearing, easy-rolling Colson casters or wheels.

**C**OLSON PRODUCTS are peace-time equipment. But because each Colson item is designed to *keep things moving*, Colson now serves vital production that must meet the needs of war.

So, throughout the arsenals of democracy, you'll find Colson equipment working day and night helping to speed arms and ammunition to the forces at the front.

**THE COLSON**

*Offices and Agencies*



**CORPORATION**

*in Principal Cities*

Casters • Industrial Trucks and Platforms • Lift Jack Systems • Bicycles • Children's Vehicles

Wheel Chairs • Wheel Stretchers • Inhalators • Tray Trucks • Dish Trucks • Instrument Tables



which delivery charges may be increased by rising transport costs if more supplies are landed at Gulf ports for delivery by rail to the big markets along the two seaboard.

• **Dominion's Experience**—Canada has already had considerable experience with import subsidies because the Dominion is far less self-sufficient than the United States and has been operating a domestic price ceiling since Dec. 1 (page 38). But when the Dominion Finance Minister reported to the country on the subsidy program a few weeks ago, he revealed that only a little more than \$2,000,000 had been paid out in subsidies during the first four months the program was in operation, and that nearly \$1,500,000 of this total was spent to maintain minimum prices on milk.

But insiders in Canada are frank to admit that this first report hardly gives a true picture as far as import subsidies are concerned.

• **Pertinent Facts**—In the first place, many importers deliberately delayed orders for replacements during the first few months the price control program was in operation because they were uncertain how it might affect their business. And in the second place, large numbers of applicants for import licenses and subsidy payments had just begun to pile up when the report was made and so were not included in the data.

Canadians who are thoroughly familiar with the import subsidy situation believe that annual subsidies will run considerably above the level indicated in the Finance Minister's report, but that it is quite unlikely that they will approach the \$50,000,000 to \$100,000,000 a year which some critics claimed would be the case.

• **The Point That Impresses**—American foreign traders, so far, are making no

estimates of the amount of subsidy this country is likely to pay in a year. That will depend on too many outside influences such as the hemisphere program and the plans for economic warfare. What impresses the foreign trade community is that their business is so rapidly becoming a government monopoly in which they merely act as the agents.

## Bottoms Down

Japan's soaring losses of merchant ships bring special session of Diet to seek answer to huge U.S. program.

Tokyo is beginning to be alarmed over the shipping outlook.

An extraordinary session of the Imperial Diet has been summoned for May 25 to vote approval of a big new shipbuilding program but public announcement of this move has merely intensified public concern.

• **Word of Losses Gets Around**—Japan, up to the end of April, had lost more than 220 ships. No official records are published but the extent of the country's losses are pretty well known in the great port cities where the news is spread by returning sailors.

It was in the midst of these gloomy reports during the last month that news commenced to leak through that the United States shipbuilding program was beginning to speed up spectacularly. When details reached the country that the United States would actually produce 8,000,000 tons of merchant ships this year, Tokyo became nervous. It would be nothing short of a miracle if Japanese shipyards built more than 800,000 tons of merchant ships this

year. Realists doubt if the total will top 600,000.

• **Blow to the Public**—The Japanese public is wholly unprepared for such a reversal of the popular concept of the shipbuilding capacities of the two countries.

Few Nipponese were aware of the tremendous shipbuilding program of the United States during the last war. Emphasis at the time was placed on the fact that Japanese shipbuilders had received orders from Washington for a number of large cargo ships. No stress was laid on the fact that the United States was building 2,500 ships in its own yards.

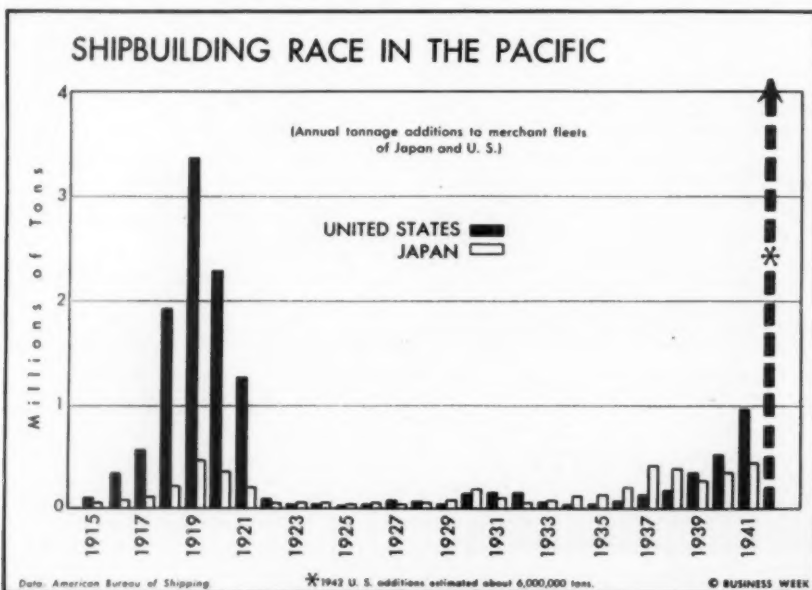
When this first World War program ended in 1921, shipbuilding in the United States fell into the doldrums. After producing more than 3,000,000 tons in 1919, 2,000,000 in 1920, and 1,000,000 in 1921, the output slumped to 99,000 tons in 1922, dipped under 26,000 in 1925, and hit an all-time low of 9,500 in 1934.

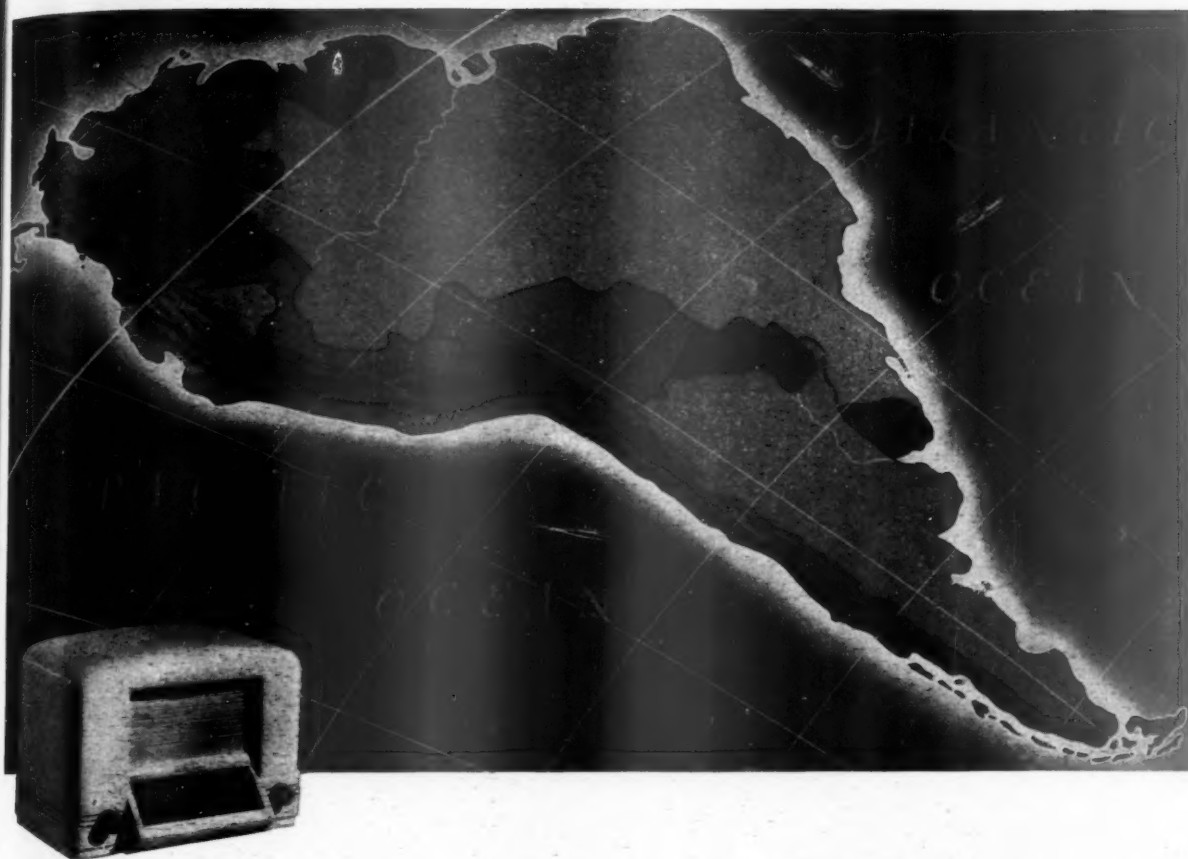
• **Creating an Illusion**—It was in this period that the Japanese developed the popular misconception that they could easily outproduce the United States. After edging ahead of us in 1926, 1929, and 1930, Tokyo quietly launched a long-term shipbuilding program geared to its dreams of conquest and the creation of a vast East Asia empire. From 1933 through 1938, Japan outbuilt the United States, and local jingoists from Hokkaido to Formosa ballyhooed the fact to an ambitious public.

There was some justification for Japan's cockiness. In the 20 years up to the outbreak of the second World War, Japan built 524 ocean-going merchant ships of nearly 3,000,000 tons. The United States, during the same period, trailed along with only 184 new vessels and about half the tonnage. As a result, 60% of Japan's cargo vessels in 1939 were less than 20 years old, while the average age of America's merchant fleet was 21 years.

• **Speed Major Object**—There was another far-sighted feature in Tokyo's program which a good many Americans ignored. Japan, knowing that it had only limited supplies of such vital raw materials as steel and copper, decided to concentrate on faster vessels with a long cruising range. Two of the fastest cargo ships in existence, the motorships Kinka Maru and Kinryu Maru, were completed in 1938. They were 10,000-ton vessels capable of traveling, fully loaded, at 18 knots, and were fitted with fuel tanks large enough to guarantee a cruising radius of 20,000 to 25,000 miles.

Tokyo has four other freighters in this speed class, and 60 more that can travel at 16 to 18 knots. American shipping officials admit that, where 40% of Japan's freighter fleet has a speed of 12 knots or better, barely 25% of this





## HOW TO LOCATE NEW YORK, N. Y., on the map of South America!

JOHN VASSOS, Industrial Designer



ACCUSTOMED AS WE ARE to constantly improved design ... what could be more commonplace to the average American citizen than a fine, streamlined table-model radio?

Yet wire that radio for short wave reception ... distribute it throughout South America ... tune it to our good-neighbor broadcasts—and you're helping to write the future history of Pan-American commercial relations ... bringing the broadcasting studios of New York as close to Rio as Copacabana beach!

But let John Vossos tell you about this "commonplace" table-radio ...

*"Collaborating with the RCA Manufacturing Co., Inc., I designed this radio set especially for use in Latin America. In experimenting with different materials for the housing, we finally selected a Durez plastic. It met*

*every design requirement; proved particularly economical on a mass-production basis; possessed the durability to withstand the rigors of deep-water transportation and the extreme differences in climate between points of manufacture and distribution. Not only were sales outstandingly successful, but also we were able to establish a definite Latin American preference for a U.S. radio over competitively priced foreign sets."*

To business and industry ... planning for greater Pan-American trade after the Victory ... this radio points up Durez plastics afresh as the materials of "tomorrow." Their versatility and efficiency are understood in any language. Would you like to keep abreast of plastics developments? A request on your letterhead will bring *Durez Plastics News* to your desk every month.

## DUREZ...plastics that fit the job

DUREZ PLASTICS & CHEMICALS, INC. **DUREZ** 1065 WALCK ROAD, N. TONAWANDA, N. Y.



# ASPHALT SPECIALTIES IMMEDIATELY AVAILABLE!

Asphalt specialties, compounded to meet your requirements, can be delivered *promptly* from Wishnick-Tumpeer's two conveniently located plants!

Pioneer Asphalt Compounds are produced from carefully chosen raw materials...selectively blended and processed to exact specification...subjected to rigid laboratory inspection. These asphalts have been serving the nation's industries for 42 years, in the manufacture of such diversified products as rubber, paint, paper, insulating and waterproofing compounds. Today they are playing an even more vital role in the manufacture of submarine batteries...in the construction of underground hangars...in paving for airport runways, roads and streets...in protective coatings for shipping airplane parts...in electrical equipment and rubber products essential to victory. And skilled research technologists in Wishnick-Tumpeer's research laboratories are constantly at work developing new compounds for many other purposes.

If you need asphalt specialties—and need them in a hurry—bring your problem to us. We are ready to assist you in selecting or creating specifications for an asphalt that exactly meets your requirements—that can be delivered to you without delay—that will assure uninterrupted production in your plant.

A complete line of asphalt paints is also available. Write for information.

## WISHNICK-TUMPEER, INC.

MANUFACTURERS AND EXPORTERS



New York, 295 Madison Ave. • Boston, 141 Milk St. • Chicago, Tribune Tower  
Cleveland, 616 St. Clair Ave., N. E.  
Witco Affiliates: Witco Oil & Gas

Company • The Pioneer Asphalt Company • Panhandle Carbon Company • Foreign Office, London, England.

country's cargo fleet can travel that fast.

- **Bigger, Faster Tankers**—Though Japan a year ago controlled less than 4% of the world's commercial tanker fleet, some of the fastest tankers in the world fly the Rising Sun flag. And, though there are larger tankers than those controlled by Tokyo, the Nipponese tanker fleet has an unusually high average tonnage.

Realizing that the navy needed high-speed tankers to fuel the fleet in the great battles which Tokyo foresaw long ago, Japan was one of the first nations to build high-speed tankers and is known now to have at least two large tank ships capable of making over 19 knots. More than 70% of the Japanese tankers were capable of traveling faster than 12 knots, while only 20% of the American oil fleet equaled this speed.

- **Two Over 16,000 Tons**—Not all of Japan's potential tanker fleet was built as oil tankers. Five of the largest Japanese tank vessels were designed as whale-oil factory ships and are of recent construction. Oldest is the Nissin Maru, 16,754 tons, completed in 1936. Biggest is the Tonan Maru III, of 19,625 tons.

Japan's shipbuilding strategy grew with its plans to carve an empire out of eastern Asia. When the world refused to contest Japan's Manchurian grab in the fall of 1931, and when Tokyo failed to run into any serious opposition when it pushed its conquests to North China, the Japanese quietly set out to build a fleet which could support the naval conquests which were to come later.

- **Program Set in 1932**—The Ship Improvement Facilities Act of 1932, which provided for the subsidized scrapping of 400,000 tons of old and obsolete vessels and the building of 200,000 tons of fast new ships, was Japan's equivalent of our Merchant Marine Act of 1936, which called for the production of 50 new and modern merchant ships a year. But it was 1939 before the first of these was commissioned, and 1940 before the 50-a-year goal was reached.

During the 1930s Japan outbuilt the United States. Its cargo ships, on the whole, were faster, and in some cases larger. It was on this flimsy advantage that Tokyo ventured its showdown with the world's two greatest naval powers—Britain and the United States. From the first, it was obvious that Tokyo was gambling on a very short war in which it would not have time to lose this momentary advantage.

- **Japan's Advantages**—Tokyo still holds certain advantages. United Nations supply routes to the Far East are desperately long and convoys are limited to the speed of a mass of slow ships. Japan now holds the oil bases of the Dutch East Indies and of Burma, which means that Tokyo's enemies must haul all their fuel from America or from Iran (BW—May 16 '42, p. 24).

But the spreading realization in Japan that America's production program is gathering terrific momentum, that Russia is providing tremendous resistance to the Germans, and that time is playing into the hands of the United Nations is beginning to create alarm. No one realizes better than the Japanese how badly equipped they are to fight anything but a short war. Next week's plan to rush an emergency shipping program is one of the first important signs that Tokyo realizes this may not be a short war.

## Ceilings Spliced

Canada hopes integration of price pattern with that of U.S. will solve import difficulties. Conservation curbs tightened.

OTTAWA—Integration of the five-months-old Canadian price-ceiling pattern with the Henderson ceiling program in the United States has started. Since the roof went on 'manufacturers' and wholesalers' prices below the border, the ceiling subsidy on a long list of imports into Canada has been withdrawn. Price Control Chief Donald Gordon counts on the United States ceiling to enable Canadian importers of essential commodities to buy at prices which will permit distribution under their own retail roof.

- **Grapefruit Juice**—Hardest hit import item is grapefruit juice. It has been bonused \$2.50 a case since the Canadian ceiling went into effect on Dec. 1. Large quantities have been imported from Texas and other southern states. Canadian health authorities had decreed that it was an essential import because of vitamin content.

Freezing of the United States price still leaves basic import prices too high for Canadian retailers to sell at a profit under the base-period highs. This means that the Gordon Board will probably make one of its first upward retail price adjustments in order to accommodate this important food product.

- **Coffee Imports**—The subsidy is also withdrawn from coffee, but this is because the Price Stabilization Corp. has decided to handle all imports for the entire Canadian trade. Volume orders are expected to effect economies which will make up for the subsidy. This policy will be followed where feasible with other commodities.

With U-boat sinking shipping well up the St. Lawrence, Canadians are cheerfully accepting additional drastic restrictions on their normal way of life. Civilian use of gasoline, tires, and other commodities has been further curbed during the last few days, and the use of metals and other scarce materials in civil-





## After you...Soldier!

**PULLMAN'S** job today is moving troops and moving you. Sometimes, the number of sleeping cars needed for troop trains leaves less than enough to handle increased wartime travel on the trains you want to take. That's why three things happen:

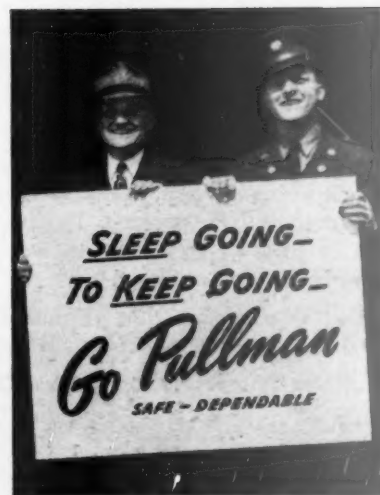
1. *You aren't always able to get the kind of accommodation you ask for.*
2. *Occasionally, you can't get any accommodations and have to postpone your trip.*
3. *Your cooperation becomes mighty important. Early reservations help decide how many Pullmans will be needed. Prompt cancellations, should your plans change, permit other wartime travelers to sleep in space that otherwise would be empty.*

Fortunately, surprisingly few of you are having any real difficulty actually getting a bed—a comfortable, full-length Pullman bed of one kind or another—on the night you need it.

*That's what counts, for all-in men can't do the all-out jobs that face us now. You have to sleep going to keep going. And sleep you do—on a Pullman—whether you punch the pillows and stretch luxuriously in an upper, a lower, a section or a room.*

It may not be the accommodation you requested, but those extra Pullmans that used to be available are attached to troop trains now. And the cheerful way you accept what sleeping space there is seems to say what all America is saying:

"After you, soldier!"



Copyright 1942, The Pullman Co.

★ **BUY UNITED STATES WAR BONDS AND STAMPS** ★

Business Week • May 23, 1942

39

This advertisement appeared in:  
 NEW YORK TIMES  
 CLEVELAND PLAIN DEALER  
 DETROIT FREE PRESS  
 CHICAGO DAILY NEWS  
 WASHINGTON POST  
 PHILADELPHIA BULLETIN

# A Connecticut Yankee Over Hirohito's Court



**D**o you remember the Will Rogers movie "A Connecticut Yankee in King Arthur's Court?"

In it there was a striking parable on today's task of putting planes over Tokio, or otherwise war-converting American industry.

The scoffing theorist was there, in the form of old Merlin, the magician.

► The reactionary was there, in the form of artisans who clung to old methods of producing war materials and knights who held on to established military concepts.

The breathless speed in teaching new methods of mechanical production was there too . . . That movie should be revived. It would be a glorious chance to see our problems and achievements in humorous perspective.

... But, dear reader, this isn't an advertisement for a half-forgotten movie. We wish to point a moral:

*When Will Rogers was transposed by the magic of*

*the scenario writer to the Court of King Arthur, he had the good fortune to carry along a book.*

With native Yankee skill, plus a "How-to-do-it" book, he rapidly transformed and later defended, the Arthurian mode of life.

► For fifty years, American industry has been transforming a mode of life. Now, it is engaged in the task of overcoming the ogre Schicklgruber and a slant-eyed Morgan le Fay who threaten that mode of living.

Whether the industry in which you work built automobiles or pink-panties in peacetime. Whether it now makes hub caps for Jeeps, or entire planes for the plumed-knights of our day. Whether you are an executive, designer, or production man, you have beside you a helper that is very similar to the "how-to-do-it" volume of the Rogers film.

*Will Rogers had just one book to help him work his transformation of Arthurian industry . . . you have hundreds of such books.*

There, you've guessed it! We are talking about

Mark Twain's "A Connecticut Yankee in King Arthur's Court" is published by Harper & Bros., price \$2.25. The Will Rogers movie version was produced by 20th Century Fox.

the Industrial Press, or "trade papers" . . . those publications-in-overalls which implement the amazing performance of the American industrialist.

Business and government officials cannot find time to read all of the technical magazines, of course. But they depend upon them, whether they know it or not.

► The men who call production conferences know that their memos always summon two men—the man who actually attends and the editor of the Industrial Magazine which specializes in helping that man do his job.

For instance: Take a typical executive of a company making anything from automobiles to lipstick holders:

Word comes from the "table-round" to get busy converting his plant to turn out its share of 185,000 planes.

From buzzer to conference, to plan, to schedule, to blueprint, to purchase, supply and actual production the mighty job rushes with (what later seems) miraculous speed.

But in the process every executive in the plant, from president to foreman, has bumped into brand-new problems.

Does each man hold up the parade while he figures out the answer? Not if someone else has faced a similar problem and found out how to lick it.

Does each man catch a plane or train and hunt through hundreds of factories for the one technique that may give the solution to his problem?

You know he doesn't. Each man turns to his old friend, the industrial editor in his particular field. If the problem has been solved, he will find in his McGraw-Hill, or other industrial magazine, a "how-to-do-it" article or advertisement . . . dry as dust to everyone but the man who is frantically looking for the specific information it contains.

*If the problem is the difference between the ductility of aviation metals, as compared to the sheets with which a production engineer has worked in his automotive days, the engineer turns to the industrial editor, or the industrial advertiser.*

If the problem is to hold tolerances to ten-thousandths in a plant that has always worked in thousandths, the executive merely says it must be done. The man in the shop must find out how to do

it without slowing production to a walk—and find out fast.

If the problem is where to get extra steam when new boilers are unobtainable, the man with the responsibility reads a certain Industrial Publication as avidly as any Superman fan ever read the comics.

► If the problem is putting up roof and sidewalls faster than machinery can be installed, the editors and advertisers of construction engineering magazines have studied the problem and wait with answers at the flick of a plant manager's thumb.

So it goes. War necessity says here is a job that must be done. Production men combine their own knowledge with the experience of others (via the Industrial Press) and go to work . . .

. . . a few months pass and headlines scream "TOKIO BOMBED."

The Industrial Press doesn't put those bombers over Tokio but it does help disseminate the industrial "know-how" which contributes to the planes and equipment.

*In recognition of the miracle of war production—accomplished through the cooperation of American management and labor with the W. P. B. . . . this advertisement is published by the McGraw-Hill Network of Industrial Communication.*

### THE MCGRAW-HILL NETWORK

23 publications, which gather "war-news" from the "war-production-front" through a staff of 153 editors and 725 engineer-correspondents. . . . More than 1,000,000 executives, designers and production men use the editorial and advertising pages of these magazines to exchange ideas on war-production problems.

American Machinist • Aviation • Bus Transportation • Business Week • Chemical & Metallurgical Engineering • Coal Age Construction Methods • E. & M. J. Metal & Mineral Markets Electrical Contracting • Electrical Merchandising • Electrical West • Electrical World • Electronics • Engineering & Mining Journal • Engineering News-Record • Factory Management & Maintenance • Food Industries • Mill Supplies • Power • Product Engineering • Textile World • Transit Journal  
Wholesaler's Salesman.

### MCGRAW-HILL BOOKS

Publishers of technical, engineering and business books for colleges, schools, and for business and industrial use.

## MCGRAW-HILL PUBLISHING COMPANY, INC.

330 WEST 42nd STREET, NEW YORK, N. Y.



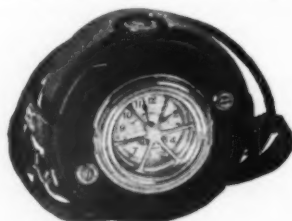


... if your Company is engaged in vital War production. In which case you are indeed fortunate, because DETEX controls and regulates the activities of your guards and watchmen, gives you a tamper-proof record of their attention to duty. Consult our experts in planning or expanding your watchmen's routes.



... if your Company is still largely a civilian enterprise, in which case your present equipment is priceless. Take good care of it. Your local DETEX representative will lend you emergency equipment while your DETEX Watchclocks undergo overhauling and repairs — with genuine DETEX parts.

Have you received your FREE copy of our manual "PLANT PROTECTION FOR NATIONAL DEFENSE"?



DETEX WATCHCLOCK CORPORATION  
Dept. BW-5

Home Office, 76 Varick Street, New York  
Sales and Service in All Principal Cities

# DETEX

WATCHMENS CLOCKS

NEWMAN ★ ECO ★ ALERT ★ PATROL

ian industry is under new and severe curtailments.

• **Everybody in Category A**—With their gasoline ration books less than two months old, Canadian motorists were notified last week that all would be reduced to Category A, the lowest. This category allows them a basic ration of 66 units of five gals. for the year. But Oil Controller Cottrelle further warned that the unit content was likely to be cut.

Immediately on the heels of the gasoline notice came an order freezing all used-tire stocks in dealers' hands and prohibiting car owners whose driving is non-essential from buying used tires.

• **Tire Eligibility**—The new order sets up three classes of persons eligible to buy tires: (1) doctors, nurses, firemen, police, essential mail deliverymen, bus operators, farmers and mining and construction men, all of whom may buy new or retreaded tires and obtain retreading services; (2) war workers and government officials needing private transportation, Red Cross workers, ministers of foreign countries, taxi operators and farmers, who may buy retreaded tires and retreading service and used tires; (3) owners of horse-drawn vehicles and farm implements, newspaper reporters, life insurance salesmen, and school teachers, who may buy only used tires.

• **Off the Road**—About one million other Canadian motorists will be off the road as soon as their present tires are no longer usable. They are not allowed to buy tires of any kind. To support the restrictions on buying and selling, motorists are barred under severe penalties from pooling their present tire resources by giving or lending tires to one another.

Further curbs to save rubber were placed on the operation of taxis and drive-yourself cars. Taxis are limited to a radius of 15 miles from their base and to aid detection of evasion they must have the name of their home city displayed on the windshield.

• **Forbidden Practices**—Taxis can't take orders to deliver cigarettes or liquor. They are barred from cruising for passengers. Curbs on the use of drive-yourself cars prevent service stations from renting them to owners of private cars for which gasoline ration books are held, and forbid their rental after 11 o'clock at night.

Transport Controller George S. Gray also plans drastic cuts in interurban bus services. Operators of such services are required to file plans of their routes with suggestions for curtailment or temporary abandonment of routes which duplicate rail services. But these returns are not required to be made before July 15, indicating that the transport controller intends to allow bus services to operate as at present during the midsummer season. Restrictions on rail travel are anticipated later.

• **Metal Restriction**—New curbs on the use of metals are issued almost daily.

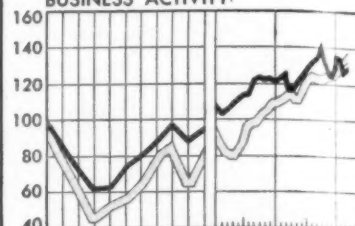
## TREND OF BUSINESS CANADA AND U.S.

1929 = 100

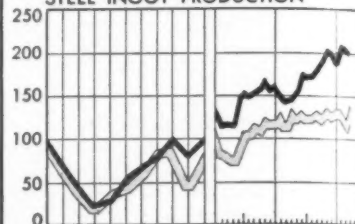
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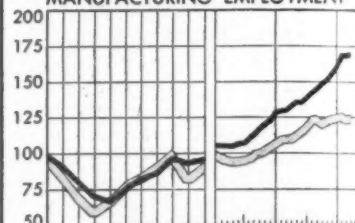
### BUSINESS ACTIVITY



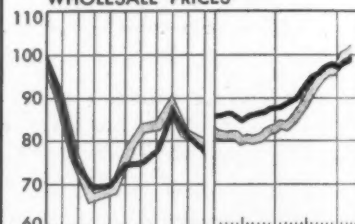
### STEEL INGOT PRODUCTION



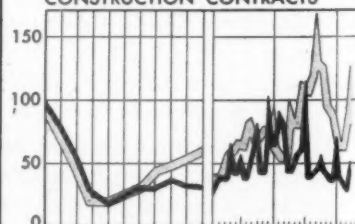
### MANUFACTURING EMPLOYMENT



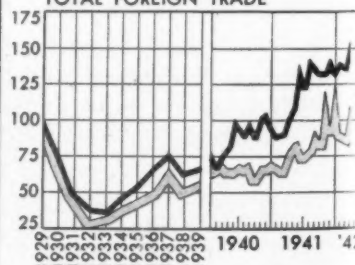
### WHOLESALE PRICES



### CONSTRUCTION CONTRACTS



### TOTAL FOREIGN TRADE



© BUSINESS WEEK

# DO YOU KNOW *This Way* OF SAVING PRICELESS CONSTRUCTION TIME?

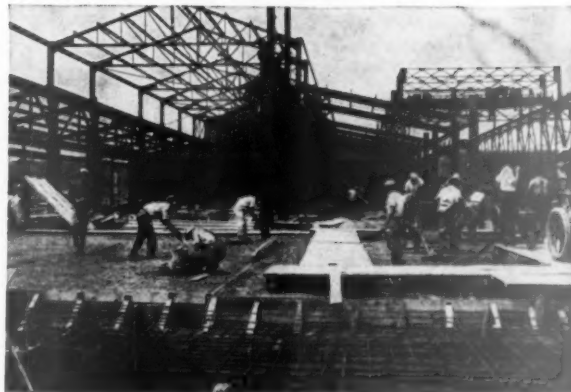
Most precious thing these days is . . . Time!

If you're planning to build to increase your production . . . or alter, enlarge, improve, repair . . . be sure you consider the advantages of (1) concrete (2) made with early strength cement.

First off, concrete in many cases may be a successful alternate for other materials on the "critical" list. What's more, when you have your concrete made with Lehigh Early Strength Cement, you save priceless time in the construction schedule . . . get into production days ahead.

For this is the cement that brings concrete to service strength 3 to 5 times faster than normal. In 24 to 48 hours it matches the strength of normal cement at 7 days. This is the cement, in short, that emergency building needs.

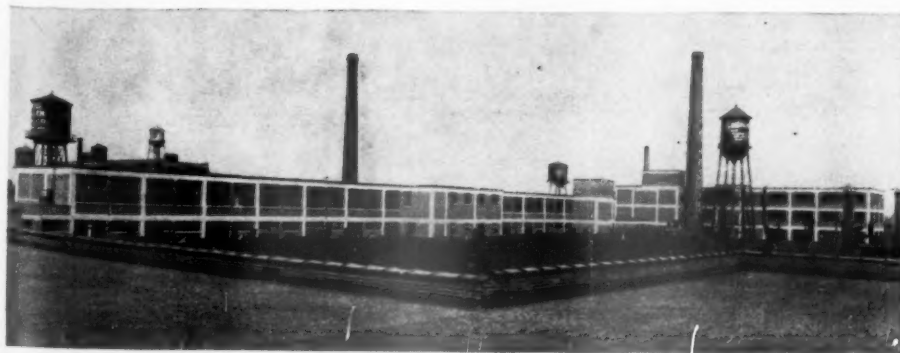
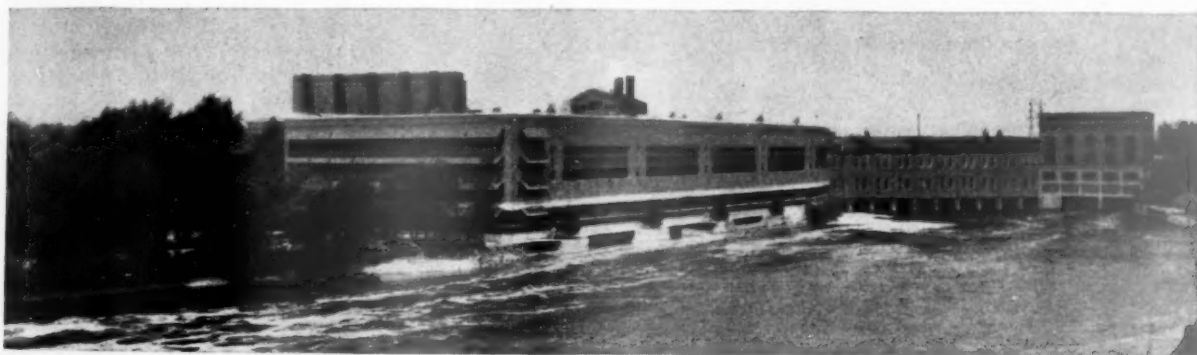
Tell your architect, engineer or contractor to figure your next construction job with Lehigh Early Strength Cement; or, if you'd like further information, write the Lehigh Service Department.



**WAR MATERIALS PLANT:** Use of Lehigh Early Strength Cement helped coordinate construction schedule, the concrete hardening sufficiently to permit steel erection to begin within 24 hours.

## Lehigh EARLY STRENGTH CEMENT

for service-strength concrete in a hurry



**PAPER MILL:** Quick-service concrete, via Lehigh Early Strength Cement, reduced danger and cost of cold weather work, enabled plant to start earlier production of new paper process.



**WAREHOUSE:** Use of Lehigh Early Strength Cement in the concrete floors permitted form removal and use of floors in 24 hours.

**LEHIGH PORTLAND CEMENT COMPANY • ALLENTOWN, PA. • CHICAGO, ILL. • SPOKANE, WASH.**



**B**OMBS that rain from the sky take a terrific toll in destroyed property and lost lives.

The special targets of enemy air-men are manufacturing plants—for here, at the sources of production, battles are often won or lost before actual combat begins. So every effort is made to protect these plants where the materials of war are made . . . camouflage and black-out, anti-aircraft batteries, even balloons swaying on leash in the sky help to keep enemy air forces from coming too close.

Yes, every device is being used to protect industry and keep the wheels of production turning smoothly and swiftly every hour day and night.

But, the enemy without is not the only destructive force which must be eliminated. Dust—like enemy bombs—dangerous and destructive,

but much more insidious in the way it attacks—is the air-borne menace that strikes from within. No deafening roar of engines or wailing air-raid sirens announce its arrival, for dust in its most destructive form—comes unheralded—can even be invisible.

The menace of industrial dust that ruins irreplaceable machinery, spoils materials in process and impairs workers' efficiency can be controlled with American Air Filter equipment.

Hundreds of existing plants and practically all new war production plants are equipped with American Air Filters to eliminate atmospheric dust and AAF Roto-Clones to control process dust.

Write today for helpful booklet, "AAF In Industry," which deals with industrial dust problems and their solution. There's no obligation.

## AMERICAN AIR FILTER COMPANY, INC.



387 Central Avenue, Louisville, Kentucky

IN CANADA, DARLING BROTHERS, LIMITED, MONTREAL, P. Q.

The latest ruling completely prohibits the use of any metal other than gold and silver in the manufacture of a long list of articles.

These range from advertising novelties, asparagus tongs, and beer kegs through bird cages, toast racks, cans for many commodities, curtain rods, fishing tackle, lawn sprinklers, pipe cleaners, soap dishes, spittoons, and coil-operated weighing machines. For a number of the articles, wood and plastic substitutes will be available, but the manufacture of many of them will be abandoned for the duration.

• **Air Training Plan**—Extension of Canada's Empire air training plan to include the training of airmen for all of the United Nations was under consideration in Ottawa this week at a conference in which the United States and several other allied governments were represented. Before the meeting, Air Minister C. G. Power disclosed that he had two major aims in connection with Canada's own air force: to extend the Canadian training system so that this country's airmen would be ready for combat when they left Canada, and to "Canadianize" the R.C.A.F. in Britain.

Up to now, Canadian-trained air fighters have had to have a finishing course overseas. Also, British authorities oppose having the R.C.A.F. operate under a distinct identification overseas. They insist on its being merged with the R.A.F. Air Minister Power is fighting for recognition for R.C.A.F. as a separate force subject to the general authority of the R.A.F.

• **Parliamentary Crisis**—The air training conference interrupted a crisis in Parliament on army conscription for overseas. In response to an overwhelming affirmative vote in eight provinces in the recent plebiscite on manpower policy (only Quebec voted heavily against it), Prime Minister Mackenzie King last week introduced a bill in Parliament to remove from the Mobilization Act a bar against conscription for service overseas.

His leading Quebec minister promptly resigned from the cabinet, protesting that circumstances did not warrant any change in the conscription law. Several Quebec members of the Commons endorsed the minister's revolt. A showdown was due this week, but the conscription bill was held over because of the air training meeting.

• **Advertising**—Advertising is safe for a while from Canadian wartime curbs. Hugh Mackenzie, chief of the simplified practices division of the price ceiling administration, last week defended the importance of advertising to the war program. But he pleaded with advertisers who have now no reason to engage in sales promotion, or who cannot benefit by competition, to devote their space to national problems by instructing the public how to conserve and by telling why restrictions are necessary.



## AGRICULTURE

### Fats of the Land

New acreage is expected to bolster vegetable oil supplies, but frothless soap and stickier paint are among probabilities.

This is a sweet-eating and grease-eating nation, and an enormous waster of both materials. Under war economy the sweet-eating wastefulness of the country has been counteracted by sugar rationing and such minor devices as stimulation of the honey-bee's production. Next in line for attention is the nation's grease consumption. The Department of Agriculture's Bureau of Agricultural Economics and the War Production Board's fats and oils section of the chemical branch are already working behind the scenes on a plan for meeting a prospective fats and oils shortage.

• **First Steps**—Voluntary curtailment is already under way. It has been suggested to industry that fats be saved by every possible means, that bakers cut down on shortenings, and that the housewife save frying pan greases and turn them over to industry through her local butcher. If these and other measures in use fail to effect adequate conservation, rationing is in store.

In 30 years the United States has doubled the quantity of vegetable and animal fats and oils consumed annually. In 1941, at the peak of this massive trend, war suddenly shut off an important segment of our normal supplies. The loss was not so much in quantity, roughly only one-eleventh of consumption, but it was painfully important in character, and it arrived just in time to coincide with considerably stepped-up needs.

• **Food Oils**—Least affected mathematically will be the food oils. Butter is our number one fat (fats and oils are the same except for degree of solidity), accounting for two-fifths of all food use. Lard is number two, accounting for three-tenths; cottonseed oil third at a rough one-fifth; soybeans better than one-twentieth and rising fast.

Alone, we could eat our heads off with our domestic production of the food oils, but lend-lease dipping into lard and dairy fats introduces an artificial squeeze.

• **War and Soap**—Food oils take two-thirds of total consumption. Next customer is soap at about one-fifth. War losses to soap are not insuperable, for imports normally used total only three-tenths of requirements, and not all these have been shut off.

The unhappy coincidence, however, is



*Forgings for the Birds of War*

OUR war program for 185,000 planes in the years 1942 and 1943 includes about 500,000,000 drop forgings. Before the planes can be produced, these half a billion parts must be forged on drop hammers like the Chambersburg Hammer shown here. Every worker, every machine and every facility of the Chambersburg Engineering Company is now dedicated to supplying hammers enough—and quickly enough to beat the time limit of that program.

**DROP FORGINGS WILL "WITHSTAND THE UNPREDICTABLE"**

"These weapons of war are very different from the products we have been building over the past years. They are subject to more severe stresses, strains and shocks. They must be built to withstand the unpredictable."

O. E. HUNT, Engineer  
General Motors Corporation

**CHAMBERSBURG**  
**HAMMERS • CECOSTAMPS • PRESSES**  
CHAMBERSBURG ENGINEERING CO., CHAMBERSBURG, PA.

that the most sensational soap oil is the one the Japanese did us out of. Soap means lather to the American consumer and lather stems from one of the fatty acids, lauric, which occurs satisfactorily in only one oil, coconut oil, from the Philippines. Coconut oil heretofore has made one-fifth of all soap. A lesser blow will be loss of palm oil.

● **Paint and Varnish**—Third consumer of fats and oils is the paint, varnish, and lacquer industry with consumption totaling something less than one-tenth of annual total use. Here loss of imports is acute. One-half of our paint needs have hitherto been supplied by imported oils.

Fourth consumer of fats and oils, miscellaneous industrial uses, has been dependent on imports to one-third of total consumption. For example tung oil, now shut off except for a trickle from China and slight domestic production, was the top notch oil for hard and quick drying, impervious finishes. Perring oil, also gone, was another good one. Palm oil was and is important to tinplate, terneplate, steel sheet and blackplate makers.

● **Where Pinch Is Felt**—The over-all bulk picture is this: Domestic consumption of 11 billion pounds in the 1941-42 season, plus lend-lease exports of 500 million pounds and commercial exports of 200 million, means total disappearance of 11.7 billion pounds. Supplies to fill will be 9.6 billion pounds from domestic materials plus 1.4 billion pounds of imports, leaving a deficit of 700 million pounds for the year. This deficit will take nearly half of the 1.6 billion pounds of factory stocks on hand at the beginning of the period.

Minimum expectations for the 1942-43 season suggest domestic disappearance of 11.5 billion pounds and exports of 1 billion, mostly lend-lease, for a total of 12.5 billion pounds.

● **Domestic Production**—Most optimistic hopes for domestic production indicate 11.5 billion pounds. An even more optimistic hope is the indicated figure of 1 billion pounds of imports. In short, it will require realization of best agricultural goals and 1 billion pounds of shipping space to eke out an even balance, which still would leave the stock pile scanty.

When war struck, the federal government lost no time in starting a series of moves to cope with the impending pinches in fats and oils. Price ceilings are an old fats and oils story. Six days after Pearl Harbor the OPA set price maximums on vegetable oils (excluding butter) at trading highs of Nov. 26, 1941. On Jan. 2 the whole setup was lifted and adjustments made between oils to fit normal trading differences. New ceilings were set at Oct. 1, 1941 levels, 11% higher.

● **WPB Restrictions**—By March most fats and oils were selling at their ceiling

levels and WPB restrictions were operative on tung oil, coconut, babassu and other palm-kernel oils, palm oil, and rape oil. The oils thus restricted show where to look for the effects of important shortages—in soap and practically the whole paint and miscellaneous industrial list. Temporary ceilings have been clamped on oil paints and varnishes. Linseed oil, to encourage flax production, has been exempted from any ceilings.

Fats and oils are sensitive to changes in industrial tempo, both because hard work leads to increased consumption of the food oils and because industry in more rapid motion steps up consumption of paint and industrial oils vigorously. For example, total industrial

in a mere dozen years to a vital mid-western standby, were given the job of walking up from 6 million acres to 9 million. Flax was assigned a rise from 3.4 million acres to 4.5 million.

Cotton, although the government neither wants nor needs more lint in a hurry, was nevertheless slated for a full quota crop which would moderately increase cottonseed and hence cottonseed oil supplies over 1941.

● **Goals vs. Results**—The difference between goals and results varies with the temper of farmers and weather. Mar. 1 planting intentions, however, indicated that flax would go up to slightly better than 4 million acres, that soybeans would exceed the increase hoped for by about a million acres.

Cotton won't have any trouble with its mild increase. And peanuts, shown as falling a million acres short of the goal in the planting intentions report, will do better than that and may just about make the full goal (BW—Apr. 18'42, p82).

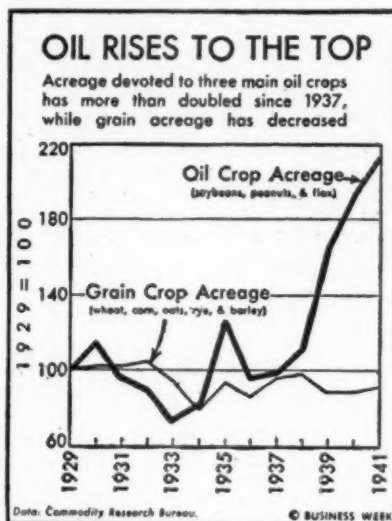
● **Expectations**—Necessarily harvests are not to be counted on in spring, but assuming average yields and the expected success in reaching or passing the goals, the conversion into actual vegetable oil of these farm efforts would be about this: 700 million pounds of peanut oil, 1,400 million pounds of soybean oil (higher than the cottonseed total for the first time in history), and 550 million pounds of linseed oil. Added together these achievements would mean more than 1,500 million pounds of additional oil for 1942-43.

If fats and oils were completely interchangeable this kind of production would make us reasonably comfortable. But there are enough differences between oils to keep the situation touchy even though farm goals are actually achieved.

● **War Factors**—Shipping space for imports is at least uncertain (remaining imports are coming from South America and West Africa). Moreover, conservation measures and restrictions on residential construction are going to be hard put to offset mounting war uses (ships, guns, planes must be painted; lathes and other machines need special lubricants; foundries need core oils; plate makers need dipping oils; the Army needs food oils).

Still another factor is that we have to kick in a growing total of vegetable fats and oils to other United Nations countries (the Agricultural Marketing Administration may be buying two-thirds of our lard production for lend-lease).

● **Significant Differences**—The differences between oils are annoyingly slight, but important. Excluding butter, which is just butter, the rest of the vegetable oils are just so many fatty acids hung together like snowflakes and with as much variation of patterning. The big simple division is that some combina-



utilization of vegetable oils in 1941 was up 30% over 1940 as the defense program, and then war, boosted construction and factory operation. Utilization of food oils, mostly in margarine, salad oils, shortenings, etc., was up 4%. Since 1932 industrial usage has consistently risen faster and farther than food use.

● **Higher Acreage Goals**—The forecasting shadow falling across the frying pan, soap bar, and paint pot in 1941 led the Department of Agriculture to prepare for increased production of domestic supplies in September, 1941. Increased acreage goals for oil-bearing crops were set, but after Pearl Harbor these goals looked inadequate by far. Consequently on Jan. 16, 1942, the USDA jumped the whole program of oil-bearing crop goals substantially.

Peanuts, for example, were given the astounding quota of 255% of 1941 production. Elaborate safeguards were set up to assure the farmer a good cash return in the first place, and to make certain that the additional production is for oil alone.

● **Soybean Stepup**—No other consequential oil crop even approached peanuts for a sheer climb in acreage percentage, but soybeans, after an amazing ascent



"COLONEL MARTIN, the famous big game hunter, was given just about the most convenient room in the hospital. He was near the diet kitchen—so he got his tray first. He was near the elevator—because he had a lot of visitors. The room was bright, and we thought he was happy.

"Then one day Miss Page, the prettiest nurse on the staff, came into my office in tears. Colonel Martin, it seems, was in a roaring rage. And when I went to investigate he started on me!

"Who works in that kitchen across the hall—a bunch of idiots who spend half their time beating on the pans with spoons?—And if I ever catch the fellow who rings the bells on that elevator I'll blast him with an elephant gun!—To say nothing of that enunciator that continually squawks, Dr. Parsons—Surgery—Dr. Parsons—Surgery! Why, the Ant Torture of the Congo tribes doesn't compare with the noise around here!"

"Of course, all I could do at the time was try to soothe our distinguished patient and caution everyone to be as quiet as possible. But at the next meeting of the Hospital

Board I got some real action about Sound-Conditioning our corridors.

"A few visits to other hospitals in town and some conversation with their Superintendents prompted us to call in the Celotex Sound-Conditioning people. They analyzed our problem quickly and did a fine job. Incidentally, Nurse Page is still here, but the Colonel and the disturbing noise have both Scrammed."

Celotex Sound-Conditioning serves society, business and industry in many ways. Quieting noisy corridors and rooms in hospitals is only one phase of our activity.

For advice and information on the solution of any problem regarding unwanted sound or acoustical correction—in any building of any type or size—consult your Celotex Sound-Conditioning representative. He is a member of the most widely experienced acoustical organization in the world.

**FREE OFFER!** The illustrated magazine, "Quiet Forum," which recounts the case histories of many sound-conditioning installations, will be sent to you free on request. Learn how modern sound-conditioning is contributing to profit and comfort all over America. Address: The Celotex Corporation, Chicago, Illinois.

# CELOTEX

## SOUND CONDITIONING

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## PROGRESS IN INDUSTRY MUST BE *Sure Footed*

**Industry wants Advanced Plant Designs that have Demonstrated their Value in the Present Emergency and that Offer a "Future" because of their Inherent Flexibility**

In crossing a stream, experience teaches us to plant one foot very firmly on one stone before stepping to the next stone ahead.

but for the past 35 years it has been a specialized experience because it has been concentrated on serving the needs of industry.

Austin Engineers, through the years, have developed new designs, revised others, but have always kept one foot, so to speak, on the solid rock of fundamentally sound engineering practice.

Founded in 1878, the experience of the Austin organization has been broad,

**A POLICY WITH A FUTURE**—In offering new ideas to Industry, the Austin policy has been to provide plant facilities that are more economical, more flexible or more functional, but above all, designs that are practical, represent good "dollar value" today and anticipate future needs.

**NEW IDEAS MUST FIT CONDITIONS**—New ideas in conventional plant designs, with electrically welded steel, include—Rigid Frame Construction, Portal Truss Type and Whaleback Design—all providing



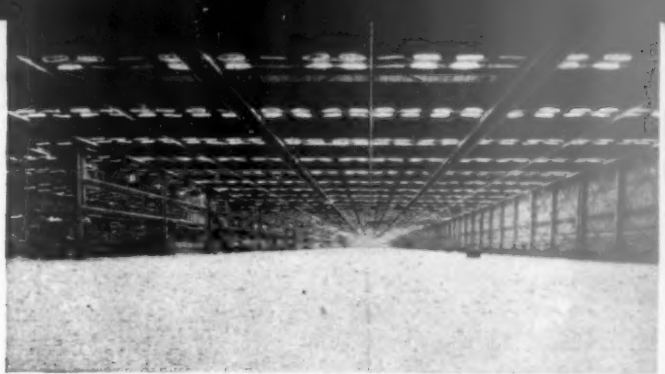
large unobstructed floor areas, excellent daylight and ventilation, plus a new flexibility . . . overhead areas usually wasted in the past have been put to work.

### "CONTROLLED CONDITIONS" OR BLACKOUT—

A basically new type of plant is the "Controlled Conditions" Plant which automatically becomes a "Blackout" Plant in which light, atmospheric conditions and noise are controlled to provide *uniform working and operating conditions 24 hours a day*, rain or shine, winter or summer, day or night.

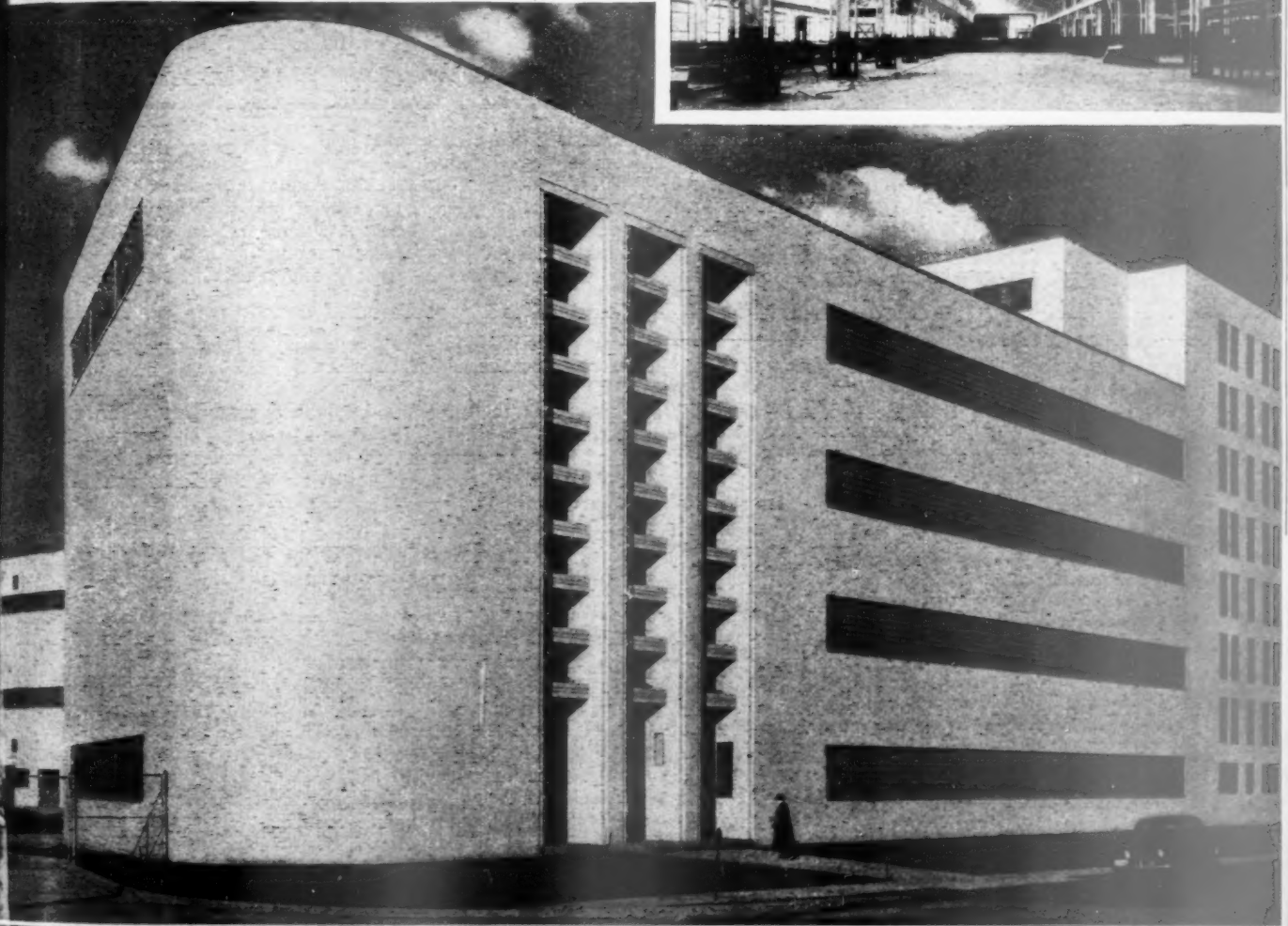
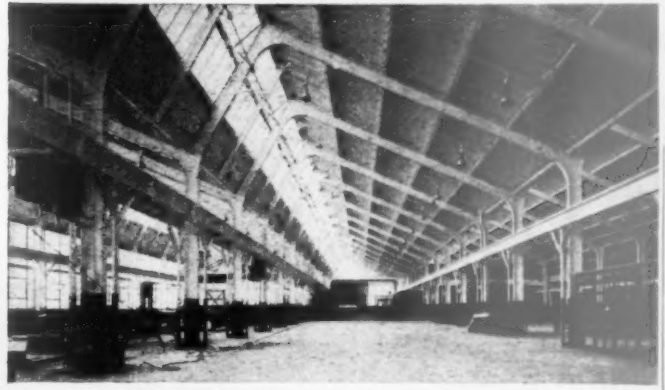
Cost estimates and suggested designs—including those which conserve critical materials—will be gladly furnished regardless of the type or kind of plant facility required.

Modern, bicarbonate of soda plant designed by Austin for Church & Dwight Co., Inc., Syracuse, N. Y. Features of this plant of functional design, which sets a new standard for quality manufacturing, include glass block and atmospheric control.



Large aircraft assembly plant in the Southwest with "Controlled Conditions." A unique feature of this "Blackout" Plant, designed by Austin, is the use of Fiberglass and Steel to provide a shatterproof, splinter-resistant and incombustible structure with insulation against heat and cold and absorption of 70% of sound.

Modern, rigid frame, sawtooth construction . . . "clean as a gun barrel" . . . for a Michigan manufacturer of hydraulic pumps, valves, controls and transmissions. Note absence of conventional truss members for greater overhead clearance . . . design and construction by Austin



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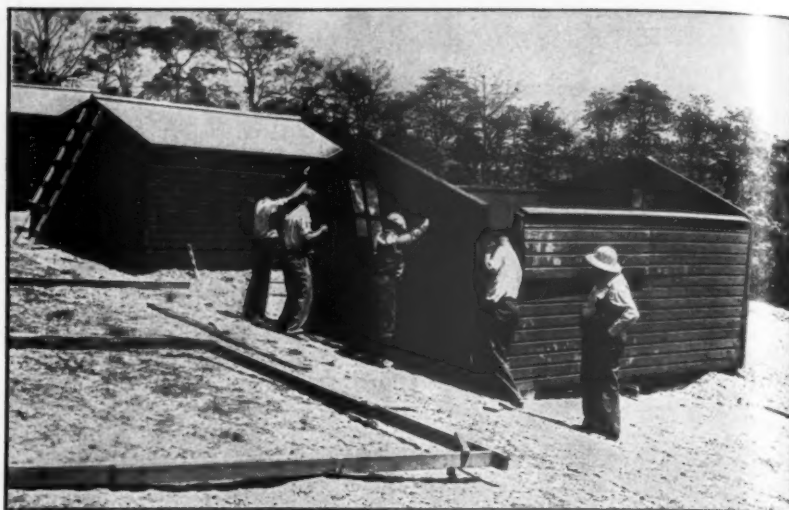


## This Free Book Helps You Find Important Suppliers

HERE'S a new Buyer's Directory for busy business. It lists all the important products which are manufactured in the State of Maine—from "Agricultural Equipment" to "Yarns."

It covers Chemicals, Foods, Leathers, Metals, Paper, Minerals, Textiles, Wood, Wood Turning, etc. It is cross-indexed for easy, quick reference by product or manufacturer. It makes it possible for buyers all over the country to contact new sources of vital material.

Maine industries have been thriving for generations while the spotlight has been on Maine as a vacation land. Maine offers business advantages which cannot be matched anywhere in the country. It is overnight from the biggest buying centers—by rail or road. Friendly labor, just taxes, economical power, plentiful natural resources combine to give Maine an industrial head-start. Write for the Buyer's Directory of Maine Industries. It is free. Address the Maine Development Commission, Room 5-B, State House, Augusta, Maine.



## HOUSING TRYOUT

Workmen rush cottage sections into place in a New Jersey farm labor camp as the United States Employment Service gets its first practice session with a critical harvest labor shortage

—that in south New Jersey asparagus, shooting out faster than whole families working 24 hours a day could cut it. Later harvests will provide further trouble spots (BW—May 2 '42, p. 56) as farm labor drains away to the ranks and factories of war.

tions dry rapidly and make good coatings, others dry slowly and merely leave grease spots.

Aside from linseed oil, and very minor quantities of tung, castor, fish and other oils, American production is exclusively in the nondrying, or food oils, while imported tropical nuts and seeds provide the drying oils vitally needed by the paint, linoleum, textile, printing ink, and many manufacturing industries.

• **Basic Paint Oil**—Linseed oil, the basic paint oil, is now produced in the United States to limits of perhaps 60% of our needs. The rest comes from Argentina. Our only other supply possibility for paints is soybean oil, which is classed as semidrying and is already used to a minor degree in paints and industrial uses. Soybean oil's pinch-hitting in the paint field means slower drying paint, perhaps, but durable finishes. Paint and varnish makers will use it because they will have to.

This is the best we can do for paint. Other earnest endeavors are under way, such as stimulated production of castor beans. After a dehydration process, castor bean oil makes a good drying oil. But the big effort is focused on greater production of linseed oil and soybean oil.

• **Freeing Soy Product**—Peanuts come into the oils and fats drive obliquely. Peanut oil is an excellent food oil, as good as olive oil, but it is nondrying and useless for paints and varnishes. However, any food oil that can find work in shortenings, margarine, salad oils, etc., can help displace soybean oil from

that field and thus make available more of the soy product for paints.

Also peanut oil, or any other food oil, can go into soap-making to some degree. No domestic oil is going to replace coconut, the chief source of the lather factor, lauric acid, but there is another angle in soap-making, the by-product glycerin, which is badly needed for industrial and military demolition dynamite.

• **Rules for Processing**—WPB has already blocked out regulations for processing oils so that a maximum of glycerin will be obtained. (It is for glycerin production that the housewife is asked to save frying-pan greases.)

Need for glycerin, if nothing else, will keep the soap industry turning out its products. Just as a curious bit of misfortune, the high lauric acid oils, of which coconut is the best, also happen to be the oils which produce the most glycerin.

• **Limitations of Program**—Flatly, there is little chance for replacing quickly and satisfactorily the drying oils and the coconut oil which constitute the heart of the impending shortage. The three big farm efforts, increased flax, soybean and peanut crops, will help, naturally, but aside from flax, they will not produce perfect fits.

Obviously the problem goes beyond the farmer's field. We have tried tung tree production along the Mississippi coast and achieved fractional success only. Castor beans in the Lower Rio Grande Valley are still a small and dubious crop. The Department of Agriculture and the paint industry's trade asso-





*From far above the clouds*

A PROBLEM LANDED IN THE LAP OF

## GLASS RESEARCH

High above the clouds the world is different. The sun shines brighter and *burns deeper*, even at temperatures far below zero.

Herein lay a problem for glass research: To protect the eyes and faces of high-flying pilots and crews from sunburn. To develop a glass that keeps ultraviolet light from pouring through cockpit and turret windows. Yet to do this without keeping out light for vision.

Libbey-Owens-Ford answered this problem by perfecting a special formula glass, a *Golden Plate Glass*, that stops more than 95 per cent of the sun's ultraviolet rays without impairing visibility or light transmission. No more sunburned eyes and faces when planes are equipped with Libbey-Owens-Ford Golden Glass!

This is one of many ways that Libbey-Owens-Ford flat glass products and research are solving present-

day problems. Of vital import is the way in which glass is serving industry as a replacement material.

### *Consider these facts about glass:*

It has many qualities not found in combination in any other material. It can be made transparent, translucent or opaque. It can be polished or coated. Its surfaces are enduring and acid-resisting. It is a nonconductor of electricity. It can be made strong, highly resistant to impact, and to thermal shock. It can be color-clear or colorful. And it has a wide range of other physical and chemical properties that fit it for use for many special purposes.

Chances are, there is a Libbey-Owens-Ford flat glass product that will meet your requirements. If not, Libbey-Owens-Ford research is at your service, ready to work on your problem. Libbey-Owens-Ford Glass Company, 1363 Nicholas Bldg., Toledo, Ohio.

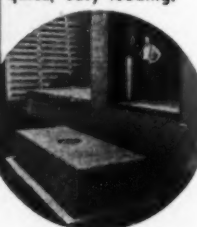
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### *What Happens?*

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Protek-Sorb, the protective absorbent, is playing an important part in production and delivery of vital supplies. It is saving time in many industrial plants by eliminating the use of time-wasting slushing compounds to prevent moisture damage. It is saving material because it removes the actual cause of corrosion, rust and mildew—moisture within the shipping container. Shipments arrive clean, ready for use or installation.

Whatever your machines are turning out for Victory—Protek-Sorb will guard it—help speed it on its way. Specify Protek-Sorb protection—for materials coming into your plant and for finished items leaving your plant.

## PROTEK-SORB

*Silica Gel*

THE DAVISON CHEMICAL CORP.  
Industrial Sales Department  
BALTIMORE • MARYLAND

ciation have sponsored experiments with any number of drying-oil crops in all regions of the country, even to relatively unknowns like lallemantia, but nothing beyond experimental patches has developed.

• **Oiticica**—If shipping space were available Brazil might help out with oiticica (BW—Jun. 1'40, p32), a satisfactory drying oil substitute for tung and perilla, but ocean space is a question, and worse than that the oiticica crop this last season was a bad failure. Moreover, the Brazilian jungle native is going to be in a whirl deciding whether to gather wild rubber, oiticica nuts, cube roots, or some other jungle product which the United States needs badly.

There is only one other recourse, the chemical laboratory. At least seven and probably many more research laboratories of meat packers, chemical companies, and oil crushers have for some time been working on the problem of taking soybean oil, for example, and fractionating it so that the molecular arrangement can be reconstituted to a desired pattern.

• **Laboratory Results**—The laboratories can do it all right, and two soybean oils, one a drying oil as good as tung and the other an edible oil better than the whole soybean oil, have been obtained. Some day, chemists insist, this breaking apart natural oils and reframing them in any wanted pattern of fatty acids will be common. At the present time, however, there are no commercial facilities for doing the job the laboratories have done.

The chemists say it is now commercially feasible, but at this point heavy investment in completely new plants built of strategic materials and using strategic chemicals is questionable, to say the least.

• **Holding Back Seeds**—A more immediate problem is the present tendency of flax and soybean producers to hold back seeds and beans while hoping for a higher general oil ceiling. If this continues too long and a carryover moves out with new crops, oil crushing facilities in the flax and soybean belts may be inadequate for the crushing job next fall.

There is already some doubt whether crushers have enough expeller, solvent, and hydraulic equipment for the full flax and soybean crops contemplated in the Department of Agriculture's goals. Cottonseed crushers can easily take care of the jump in peanuts for oil, but it is possible that some soybeans will have to find their way to Pacific Coast copra crushing mills before they can be crushed.

• **What It Means**—Some of these problems may easily dissolve, or grow worse, as the season moves on, but at this point it looks as if the oil-fat stringency would mean nothing worse than possibly frothless soap, paint that is sticky a few

hours longer and may crack a little easier, less lard, and perhaps fewer cans of shortening and salad oil on grocery shelves, or even rationing distribution of all of them.

Some of the good points should not be passed up. More livestock means more tallow and more animal oils. Bigger oil crops mean bigger supplies of press cake for cattle feed and hence an easier job of producing more meat. And more lard and oils sent to others of the United Nations could mean somewhat easier military problems for our own forces.

## Fertilizer Fright

We're over the hump for this year with little evidence of shortage, but farmers fear lack of nitrates in 1943.

To the farmer struggling to raise his sights to the high wartime farm goal this crop year, there was a definite and heart-breaking fertilizer shortage if he failed to find his favorite mixed plant food or top dressing at the local feed store. Statistically he was pretty much wrong. There was and is no fertilizer scarcity, although that hardly cures the fact that in a good many spots, mostly southern, farmers had to trust the good earth alone this spring.

• **What of 1943?**—The hump for the year has now been passed, however, as far as the grower is concerned. But, as the Department of Agriculture has warned through more than one spokesman, farming is going to be tougher in 1943 than in 1942 in many ways. Fertilizers, object of the first temporary price order which the Office of Price Administration issued, may be one of the tough points.

Of the three basic plant stimulants—nitrogen materials, phosphoric acid materials, and potash—only one is in question, those bearing nitrogen. The phosphoric acid materials, most commonly and most heavily used, are backed by immense domestic supplies. In no year has the country used more than 5,200,000 tons of superphosphate (basis 16% available phosphoric acid) and it is estimated that there are 10,000,000,000 tons of high-grade phosphate rock in the United States. Most phosphate rock comes from Florida and Tennessee; so far western reserves have hardly been tapped. Reserves will last for centuries.

• **"Mining" Lake Water**—Potash today is as safe as phosphate, but when the last war shut off imports potash was not available at any price. After trying a dozen sources, the fertilizer industry in 1916 started to develop potash from brines at Searles Lake and brought that

NO SOONER SAID

than Done

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Organization and experience are the two primary factors responsible for Lyon's ability to move fast and effectively at each step in the handling of Prime Contracts and Sub-Contracts for unusual fabricated sheet metal products.

Lyon field men are specially trained to gather all pertinent facts for matching our facilities with your needs. At daily meetings of our War Production staff—where all major departments are represented—plans are laid and synchronized for speedy handling of every commitment. Well into its second year of continuous operation, Lyon's War Production Staff provides a working knowledge of War Order Requirements and Pro-

cedures difficult to duplicate. Ready to advance the staff's plans into production is one of America's best equipped organizations for fabricating sheet metal. Lyon's big, modern plants cover an area of over half a million square feet. Completely equipped toolrooms assure prompt production and maintenance of all necessary dies and jigs.

So, if you have products or parts of products to be made for Uncle Sam that require fabrication of No. 8 to No. 30 gauge sheet steel... turn to LYON for ACTION. We have the facilities to make such products in large quantities... to have them ready when you need them. Write for brochure, "Craftsmen in War Production."

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source along with romantic success. Today this lake, together with mining operations in New Mexico, provides a highly adequate supply and reserves for hundreds of years.

Measure of the fertilizer stringency this year was the moderate scarcity of sodium nitrate. Half of all sodium nitrate is used as top dressing and since all sodium nitrate constitutes about one-third of all fertilizer used, the recorded deficiency of 40% in top dressing worked out to a net shortage of only 12% or so for the country as a whole. The Southeast bore practically all of this shortage.

Normally 90% or so of our sodium nitrate is imported from South America. Stocks accumulating now for use next spring are dependent on the sea lanes entirely, since new fixation plants here will be used for munitions.

## Wheat Bugaboo

**Trying to keep some space open in terminal elevators to receive new grain baffles CCC at loan foreclosure time.**

Contrary to a tradition of melodrama, the Commodity Credit Corp. is sheepishly foreclosing the mortgage on farmers' wheat and the farmer is in a smiling hurry to turn the old wheat over. In its role of kindly forecloser the CCC has voluntarily told growers who borrowed on 101,000,000 bushels of wheat that they may have 60 days past default date without penalty.

• **Storage Space Problem**—Probably the CCC would prefer that the borrower

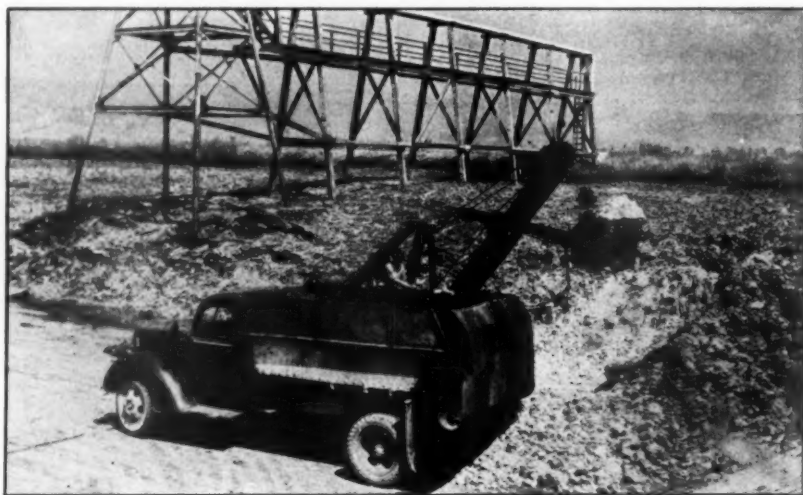
not even notice that the loan was in default, for the question of storage space for wheat is coming to a head, and there is no more room for wheat apparent now than there was a month ago (BW—Apr. 25 '42, p81).

Beginning May 25, an effective embargo on all wheat moving to terminal storage goes into effect, and about June 1 all wheat moving into cash grain markets will be subject to permits issued by terminal committees. For a while, at least, the committee system (permitting a grain car to move toward you only when you have storage room or a market for it) will cope with moving wheat as it did last year.

• **In Friendly Hands**—Since the terminal committees are composed of farm and trade members, grain movement is still in the hands of those who normally direct the movements. The government will probably spend the next few weeks ducking the ever-present possibility that a federal agency should take over all movement.

Meanwhile the CCC is shopping around with \$2,000,000 seeking steel and wood bins, or some sort of wheat housing, for about 100,000,000 bushels of wheat taken in on defaulted loans. This is in addition to the bins being moved to grain areas from the corn belt. New storage tanks, when and if manufacturers and CCC can get together on price, will be set along rail facilities or sold to farmers, anything to keep the grain off the ground, out of the weather, and away from rats.

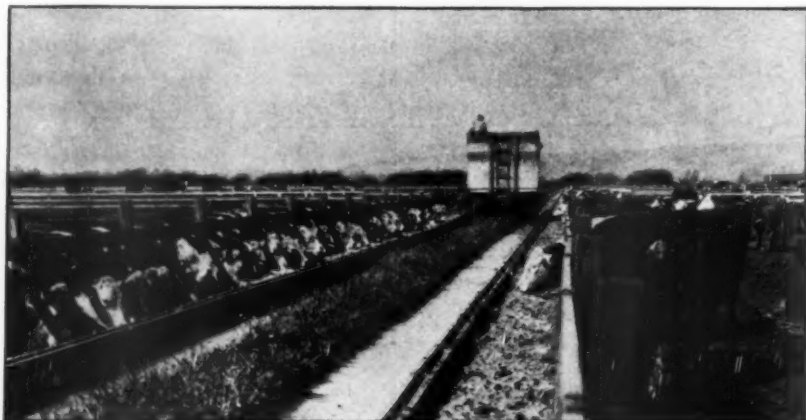
• **Sell at a Loss?**—Congress hasn't been helping the temper of the big loan corporation, either, by forming fighting lines to debate the question whether surplus CCC wheat should be sold at losing prices in competition with corn for livestock and poultry feed.



## STEAK PRODUCTION

The ingenious use of mechanical equipment in large-scale cattle-feeding operations by the Holly Sugar Corp. (Alvarado, Hamilton City, and Tracy, Calif.) has just about whipped a labor shortage problem. The job of feeding 2,500 head of cattle, which

formerly required seven men, is now done with one man assisted by a power shovel and a specially designed truck equipped with a dump body and screw conveyor. Only ten minutes are required to load six tons of wet beet pulp (above) and ten minutes to distribute the load in the feed troughs at the feeding lot (below).



## TOO MUCH CHEESE

With the slightest encouragement, cheese-makers will run production up to surplus levels. When lend-lease and Army requirements for more cheese stirred up Wisconsin's cheddar producers last year (BW—Oct. 18 '41, p33), they started on a curd-curing program which, on May 1 this year, had reached the point of embarrassment.

A new all-time high record supply of American cheese—180,151,000 lb.—was apparent when the government took stock of cheese on May 1, the reserve having increased during April by 16,212,000 lb., contrary to normal experience. Stocks are now almost double those of last year.

Lend-lease buyers own more than a third of the record store of cheese, and the implication is that acquisition has outrun ability to ship cheese abroad. The question of age therefore arises. Some aging sweetens American cheddar, too much doesn't help.

Important to all buyers or users  
of office or portable typewriters:

# A War Time Message to:

☆ Susan Wood of Mansfield, Ohio

☆ James V. Hammond, Purchasing Agent, Chicago, Ill.

☆ Corporal John Watts, Governors Island, New York

☆Dear Susan:



Probably you know it already . . . we can't sell you that smart new Corona you wanted. Uncle Sam has ordered us to make fewer Coronas, to sell those we do make only to Army and Navy, men, and machines over to making things our fighting men need. We're sorry, Susan . . . and likewise we're proud and glad.

But Susan . . . don't give up your good idea! Borrow or rent a typewriter, and learn to type—*now*. Today, and for years ahead, this country needs lots of good typists. Your plan was smart. It still is smart . . . stick to it. We still say, "Many a career starts on a Corona!"



☆Dear

Mr. Hammond:



Nobody dreamed of a rubber shortage three years ago, when you "standardized" your office on L C Smith typewriters. But when we tell you today that you can regrind your L C Smith rubber platens, and make them last six, eight, maybe ten years, you can certainly credit yourself with smart buying. It's a feature most typewriters do not have.

You probably know that we're keeping our service and repair departments going full blast at every branch office. We know how much you need typewriters, and although we can't sell you new ones, we can certainly keep your present machines going. Proof? Well—L C Smith Model 1, Serial 1, made in 1905, is in good operating shape right now! Why not have us work out a service program for you at minimum cost?

☆Dear Corporal:



You're one typewriter user we can talk "turkey" to, because (within certain limits) we can still make and sell new L C Smiths and new Coronas to the Army and the Navy.

You already know something about the speed of both machines, and you know their record for standing up under hard use. Both were re-designed before war hit us—so you can be sure they're equipped with all worthwhile operating features.

Here's the point: you might be asked to express your preference (and again you might not!). If you get a chance, ask for an L C Smith or a Corona, as the case may be. You can take our word for it—for sound design, honest workmanship, and long-lived usefulness, they are both outstanding. Descriptive booklets free on request.

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L C Smith & Corona Typewriters Inc

Syracuse New York

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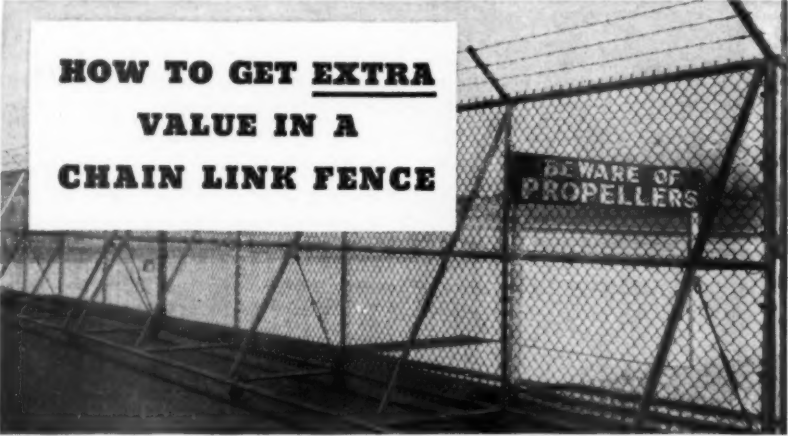
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Wickwire Spencer engineering pioneered developments which improve the quality and appearance of chain link fence

—for instance, the process of hot galvanizing after weaving, for greater durability.

No job is too large, no job is too small. Every job, including your own, will be engineered with skill born of many years' experience on all types of property.

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**WICKWIRE FENCE**

## LABOR

### Vacations: 1942

Management finding ways to give war workers benefits of time off where possible without sacrifice of production.

War Production Chief Donald Nelson has told industry that the government favors vacations for war workers, but that employers must show "ingenuity in securing the vacation benefits without paying a counter balancing cost in productive hours lost."

• **Industry's Attitude**—A survey of representative firms reveals that there is unanimous endorsement of the Nelson statement that "under no circumstances can the desire or need for vacations be permitted to excuse any shutdown of any department of any war production plant." In only one of the companies polled by Business Week have the exigencies of continuous production made it necessary to abandon the vacation idea. The Fruehauf Trailer Co. has secured employee cooperation in a war-time policy of paying an eligible worker 40 hours of wages in lieu of his vacation time. Other firms have been able to proceed on the basis of last year's policy without sacrificing production or have made modifications which will permit at least a limited number of holidays.

• **Season Expands**—As a result, the traditional vacation season is expanding. To provide vacations without slackening operations, many employers have junked old schedules which confined vacations to the summer months. The Aluminum Co. of America and Westinghouse have led the way in this respect. Both now consider the full year as the period in which vacations may be scheduled. By adroit scheduling over the twelve months, it is hoped that full vacations may be provided without production interference. Where that is impossible, employees will be paid in lieu of time off.

Some companies, like Philco Corp., are still in the process of converting from civilian to war production. In such cases, the tendency is to have employees take vacations before their particular department starts war work.

• **Dividing the Time**—Packard Motor Car Co. has initiated a system of dividing vacation time into two or more short periods, instead of the customary continuous one or two weeks, in order to spread the manpower loss as thinly as possible. This scheme is being followed by a number of war material plants.

The Pennsylvania Railroad, in common with all the other Class I roads,



is this year for the first time bound by agreement with the railroad unions to give vacations with pay. (Such vacations for salaried workers are customary.) P.R.R. reports: "In order to assist in smoothing out the peak demands of transportation. . . efforts will be made to have our employees begin and end their vacations in mid-week instead of on week ends; also, where the nature of their work permits. . . employees will be encouraged to take their vacations either somewhat before or somewhat after the usual mid-summer period."

• **Finding a Way**—United Aircraft Corp. sums up the feeling of most reporting firms by saying, "We do feel that it would be very desirable to re-energize our personnel by means of individual vacations of one week where this can be done without major interference with production."

In the past, United has shut down plants for a week's vacation. This year such an arrangement is patently impossible. Yet the value of a summer week off is held to be so important to workers' efficiency that the company reports, "We are, therefore, currently studying the whole problem in the hope that we can devise some means of permitting vacations in departments which may be temporarily ahead of schedule." Such a policy may be expected to contribute to greater productive efforts as workers seek to beat normal quotas to earn vacations.

• **At Company's Convenience**—United Air Lines, formulating its vacation policy before the announcement of the Army air transport takeover (page 14), illustrates another wartime trend: "Vacations heretofore given at the convenience of the employee will be reversed and given at the convenience of the company."

One large mid-western manufacturing company, carrying its load of war work, reports:

"An effort is being made to see that all persons who have been subjected to particularly heavy overtime get a full vacation. The question of whether an employee foregoes any of the vacation to which he is entitled is purely voluntary on the part of the employee; however, where an employee's taking a full two weeks vacation would interfere with war production, this feature is brought to the employee's attention so that it may be considered in the employee's decision as to whether a part of the time off should be given up."

• **Double Wages**—As a special inducement to workers to forego their vacation time off, International Business Machines, which considers vacations an inalienable employee right, has offered double wages to those who will stay on the job during their holiday period. To its 5,000 employees, the company said, "Each employee who foregoes his vacation will receive vacation pay, and in addition compensation based on his pre-

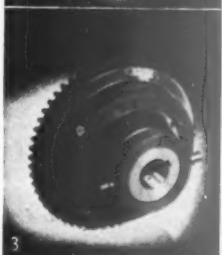
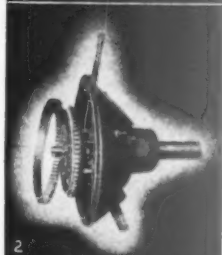
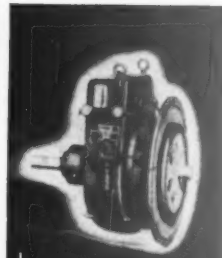
# No time to lose!

America at war cannot afford a single minute of lost production due to breakdowns or preventable delays. Every minute saved brings us closer to our goal: Winning the War!

In all types of production machinery, Twin Disc Clutches are giving the dependable service that only years of research and specialization can assure.

No matter where your plant may be located, you can be sure of competent service or parts for your Twin Disc Clutches, Power Take-offs or Hydraulic Drives. Strategically located throughout the country are 7 factory branches and 30 parts stations, all prepared to meet your service and parts need at any hour of the day or night. Complete stock of parts assures prompt shipment, even for exceptional or unusual demands. This complete service organization protects you against interrupted production, helps you to maintain emergency schedules. **TWIN DISC CLUTCH COMPANY, 1365 Racine Street, Racine Wisconsin.**

1. Twin Disc Hydraulic Torque Converter. In considering installation, ask for complete data and specific recommendations. 2. Twin Disc Model E Clutches, heavy-duty, enclosed type. Sizes: 14" to 42" in single or two-plate assemblies. 3. Twin Disc Power Take-off for engines having up to 285 hp. output. Sizes: with single plate clutches, 6½" to 24"; double plate, 11½" to 18". Housing sizes: No. 6 S.A.E. to No. 00 S.A.E. 4. Twin Disc Machine Tool Clutches, single or duplex to run dry or in oil. Sizes: 2½" to 12". Illustrated: MTU Single Hub to run in oil.



## Twin Disc replacement parts in these cities:

**Alabama:** Montgomery, Parts Service Corp. **California:** Los Angeles, Charles W. Carter Co.; San Francisco, Charles W. Carter Co. **Colorado:** Denver, Liberty Trucks & Parts Co. **Florida:** Jacksonville, Motor Parts & Supply Co. **Illinois:** Chicago, Wisconsin Industrial Parts. **Kansas:** Great Bend, Scheufler Supply Co. **Kentucky:** Lexington, Wombwell Auto Parts Co. **Louisiana:** New Orleans, Mechanical Equip. Co. **Maine:** Portland, Southworth Machine Co. **Massachusetts:** Boston, Rapp Huckins Co., Inc. **Michigan:** Detroit, W. C. Ducomb Co., Inc. **Minnesota:** St. Paul, Truck Parts, Inc. **Missouri:** St. Louis, Twin Disc Clutch Co. **New York:** Buffalo, Edward W. Rode; New York, Twin Disc Clutch Parts & Service of New York, Inc. **Ohio:** Cincinnati, C. McCashy; Cleveland, Twin Disc Clutch Co.; Cleveland, Industrial Engine Parts. **Oklahoma:** Tulsa, Twin Disc Clutch Co. **Pennsylvania:** Philadelphia, Twin Disc Clutch Parts & Service of Philadelphia; Pittsburgh, Contractors Equip. Ser. Co. **Tennessee:** Knoxville, Automotive Equip. & Supply Co.; Memphis, Choctaw Culvert & Mach. Co. **Texas:** Dallas, Twin Disc Clutch Company; Fort Worth, John Muller Co.; Houston, Portable Rig Co., Inc.; John Muller Co. **Utah:** Salt Lake City, Lund Machinery Co. **Virginia:** Richmond, Standard Parts Corp. **Washington:** Seattle, Twin Disc Clutch Co.

**TWIN DISC**  
CLUTCHES AND HYDRAULIC DRIVES

REG. U. S. PAT. OFF.

vailing rate for the number of hours actually worked in each work week during the vacation period. Workers may take a vacation with pay, however."

On the whole, the war has made a general rule out of a practice which developed under the defense program: appeal to employees doing essential work to take their vacation pay and stay at work. But the management ingenuity which Nelson called for, in asking that the benefits of vacations be secured without suffering a loss in output, is being amply demonstrated.

## Steelman Stymied

**Montgomery Ward rebuff to Msgr. Haas places Conciliation Service in position where it loses face—strike or no strike.**

John Steelman, head of the U.S. Conciliation Service, was wondering this week how to deal with what a government official in another labor agency characterized as "the neatest kick in the teeth ever aimed at Steelman's Service." He was talking about the Montgomery Ward Co.'s labor policy, which happens to be anathema to both Steelman and the C.I.O. but which the company believes in so strongly that it refuses even to discuss modifications.

● **Avery's Attitude**—The long-standing Ward policy, generally conceded to have been formulated by Sewell Avery, company president, has been based on a refusal to make any concessions to unions. How seriously that policy has been held is indicated by the fact that the company once closed a profitable retail outlet in an Illinois coal town rather than retreat on its open shop position. The nearest thing to Ward capitulation to union demands came last summer (BW—Aug. 24, p. 45) when the company signed a contract with West Coast A.F.L. warehousemen, retail clerks, and office workers after a long strike which had closed the firm's Oakland and Portland warehouses. But the unions did not get a closed shop.

The present situation involves C.I.O. and the giant mail order plant in Chicago which is the heart of the whole Montgomery Ward enterprise.

● **Brushed Off**—More than a year ago, C.I.O.'s United Retail and Wholesale Employees Union directed its Chicago organizer, Leonard Levy, to concentrate on the Ward plant. Early this year Levy had signed up enough Ward employees to be able to go to the company and announce that U.R.W.E. spoke for a majority. He told company officials that he expected them to recognize the union and bargain with it. He got himself brushed off with a "nothing doing," said very politely.

Levy went to the National Labor Relations Board with a petition that the union be certified as collective bargaining agency for Ward employees. The board, aware that a dispute existed over representation, asked Ward to submit to a check of union cards against payroll records in order to determine the union's strength. Again, the company's answer was a polite but firm "No."

● **Board Orders Election**—An NLRB representative then asked the company to agree to an election among its employees which would decide whether U.R.W.E. had a majority. Again the answer was "No." So the board went ahead and held hearings in which it was determined, by due process of law, that a dispute over representation did indeed exist. Having satisfied the procedural requirements, NLRB ordered an election.

Polled on whether they wanted U.R.W.E. to represent them, Ward employees voted "Yes" by about two-to-one, and the union was duly certified (BW—Feb. 21 '42, p. 7). Levy and a committee of Ward workers went back to see the management, armed this time with official status. They presented a list of demands—for a wage increase, a union shop, seniority rights, and a contract which would include a provision for arbitration. The company representatives continued to say "No."

● **Conciliation Service Steps In**—After some weeks of futile discussions, the growing impatience of Ward employees with the fruitlessness of the negotiations came to the attention of the Conciliation Service, whose agents make it their business to keep posted on such matters. Inquiries by Conciliation Service deter-

mined that, to the union's mind, the fact that Sewell Avery could not be induced to take part in the negotiations was the reason for lack of progress.

Union representatives on the bargaining committee reported the conviction that the company negotiators had no power to make decisions, and that, unless Avery either gave them that power or took part in the negotiations himself, the union would be forced to consider striking.

● **Official Action**—Conciliation Service found that it was indeed true that Avery had not appeared at any of the conferences and that union requests that he meet with the committee had been turned down. Although there was some question as to whether the company representatives were empowered to reach an agreement, John Steelman thought the situation was critical enough to move in officially.

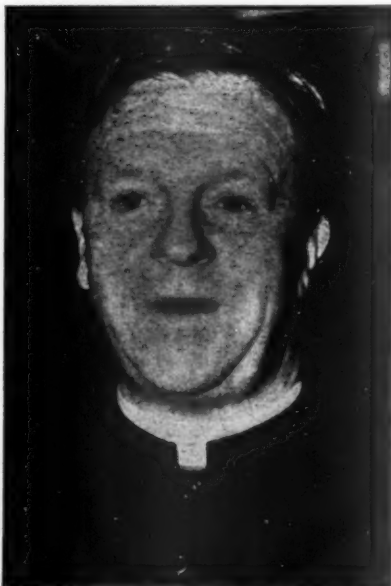
So Steelman sent to Chicago the most respected and eminent of his trouble shooters: Msgr. Francis J. Haas, dean of the Catholic University of America, who bears the honorary title of Special Commissioner of Conciliation. Called in from time to time on especially tough cases, Msgr. Haas has a record of success in conciliating labor disputes which very few other men can approach.

● **Avery's Door Closed**—When Msgr. Haas got to Chicago, a quick survey of the Ward dispute convinced him that the situation was "hot" and that an earnest talk with Avery had to be the first order of business. But Steelman's emissary had no more success in getting to see Avery than had the union committee. Avery was sick, busy, or not available, and Msgr. Haas had to leave town without having managed to talk with him.

Msgr. Haas's report to Steelman (failure to begin conciliating; an absolute deadlock; failure to reach Avery) was regarded by Conciliation Service as a record of one of the most outrageous affronts ever meted out to it. And Steelman is not the kind of man who takes affronts lightly. Yet, under the circumstances there is not much he can do about it. His division has no power to act except on a basis agreeable to both parties in any dispute before it.

● **Steelman's Dilemma**—Washing his hands of the matter by certifying the case to the National War Labor Board—a course which the union is now demanding—would be to admit failure and suffer a loss of the prestige upon which the Conciliation Service depends for its effectiveness. On the other hand, continuing to sit on the case without making any progress will probably induce the union to strike, which will be even more discreditable to the Steelman agency's prestige.

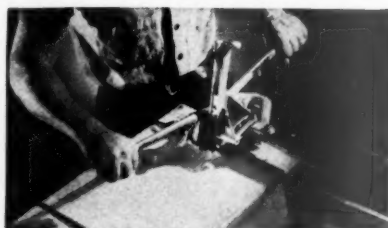
Union leadership is prepared to give Steelman about two weeks, but not much more. At the end of that time, if



Given the runaround in Chicago, Msgr. Francis J. Haas, Special Commissioner of Conciliation, had no chance to conciliate.

# MEET FEDERAL STRAPPING SPECIFICATIONS

WITH *Acme Steelstrap*



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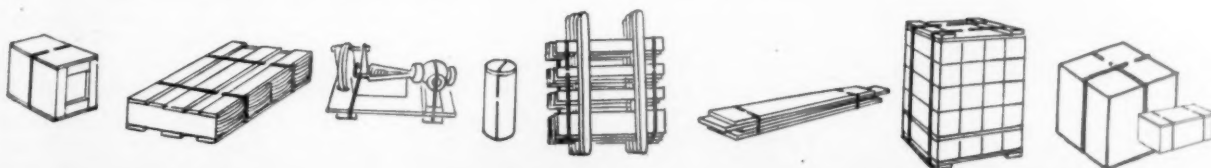
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Direct representatives, experienced in helping shippers fulfill Government requirements . . . are available. They can help you with your strapping problems, show you ways to speed up the application of strap. Write, 'phone or wire the nearest Acme office.

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## What's Happening to the Cost of Living

|                    | Food  | Clothing | Rent  | Fuel, Ice,<br>& Elec-<br>tricity | House<br>Furn-<br>ishings | Misc. | Total<br>Cost of<br>Living |
|--------------------|-------|----------|-------|----------------------------------|---------------------------|-------|----------------------------|
| August, 1939 . . . | 93.5  | 100.3    | 104.3 | 97.5                             | 100.6                     | 100.4 | 98.6                       |
| April, 1941 . . .  | 100.6 | 102.4    | 105.4 | 101.0                            | 102.4                     | 102.2 | 102.2                      |
| May . . . . .      | 102.1 | 102.8    | 105.7 | 101.1                            | 103.2                     | 102.5 | 102.9                      |
| June . . . . .     | 105.9 | 103.3    | 105.8 | 101.4                            | 105.3                     | 103.3 | 104.6                      |
| July . . . . .     | 106.7 | 104.8    | 106.1 | 102.3                            | 107.4                     | 103.7 | 105.3                      |
| August . . . . .   | 108.0 | 106.9    | 106.3 | 103.2                            | 108.9                     | 104.0 | 106.2                      |
| September . . . .  | 110.8 | 110.8    | 106.8 | 103.7                            | 112.0                     | 105.0 | 108.1                      |
| October . . . . .  | 111.6 | 112.6    | 107.5 | 104.0                            | 114.4                     | 106.9 | 109.3                      |
| November . . . .   | 113.1 | 113.8    | 107.8 | 104.0                            | 115.6                     | 107.4 | 110.2                      |
| December . . . .   | 113.1 | 114.8    | 108.2 | 104.1                            | 116.8                     | 107.7 | 110.5                      |
| January, 1942 . .  | 116.2 | 116.1    | 108.4 | 104.3                            | 118.2                     | 108.5 | 112.0                      |
| February . . . . . | 116.8 | 119.0    | 108.6 | 104.4                            | 119.7                     | 109.4 | 112.9                      |
| March . . . . .    | 118.6 | 123.6    | 108.9 | 104.5                            | 121.2                     | 110.1 | 114.3                      |
| April . . . . .    | 119.6 | 126.9    | 109.1 | 104.2                            | 121.6                     | 110.6 | 115.1                      |

Data: U. S. Bureau of Labor Statistics; 1935-39=100.

he can't get Avery to talk business or if he doesn't accept the union's point of view that the mail order house is important to the war effort and thus comes properly under the jurisdiction of NWLB, U.R.W.E. is prepared to see whether or not a strike will induce Sewell Avery to sit down with its committee and start saying "Yes."

## Calling the Doctor

Industry's output depends increasingly on plant physicians as war intensifies problems of absenteeism and worker health.

Expansion of industry has made a production man out of the doctor, putting him right alongside the engineer as a key man in turning out the goods. And, as new armies of workers are mobilized to man the war-created assembly lines of the nation the plant physician's importance in the industrial scheme of things is increasing from day to day.

• **New Problems**—A year from now, employees in war industry are expected to number 23,000,000. To point out that the medical profession will have more factory workers to care for than ever before is to state the problem in its simplest aspects. Many of the new workers will be women, older men, persons formerly on relief, handicapped, or inexperienced; in other words, they will bring problems of health and efficiency on a scale industry has not hitherto encountered.

A management appraisal of the doctor's war job in industry was made recently by B. D. Kunkle, General Motors vice-president, at the sixth annual conference of G.M. plant physicians. He said that it was up to the medical man (1) to select workers capable of doing the job without hazard to themselves or their fellows, (2) to study the medical

consequences of new industrial processes and materials, and (3) to devise health maintenance programs wherever they were lacking.

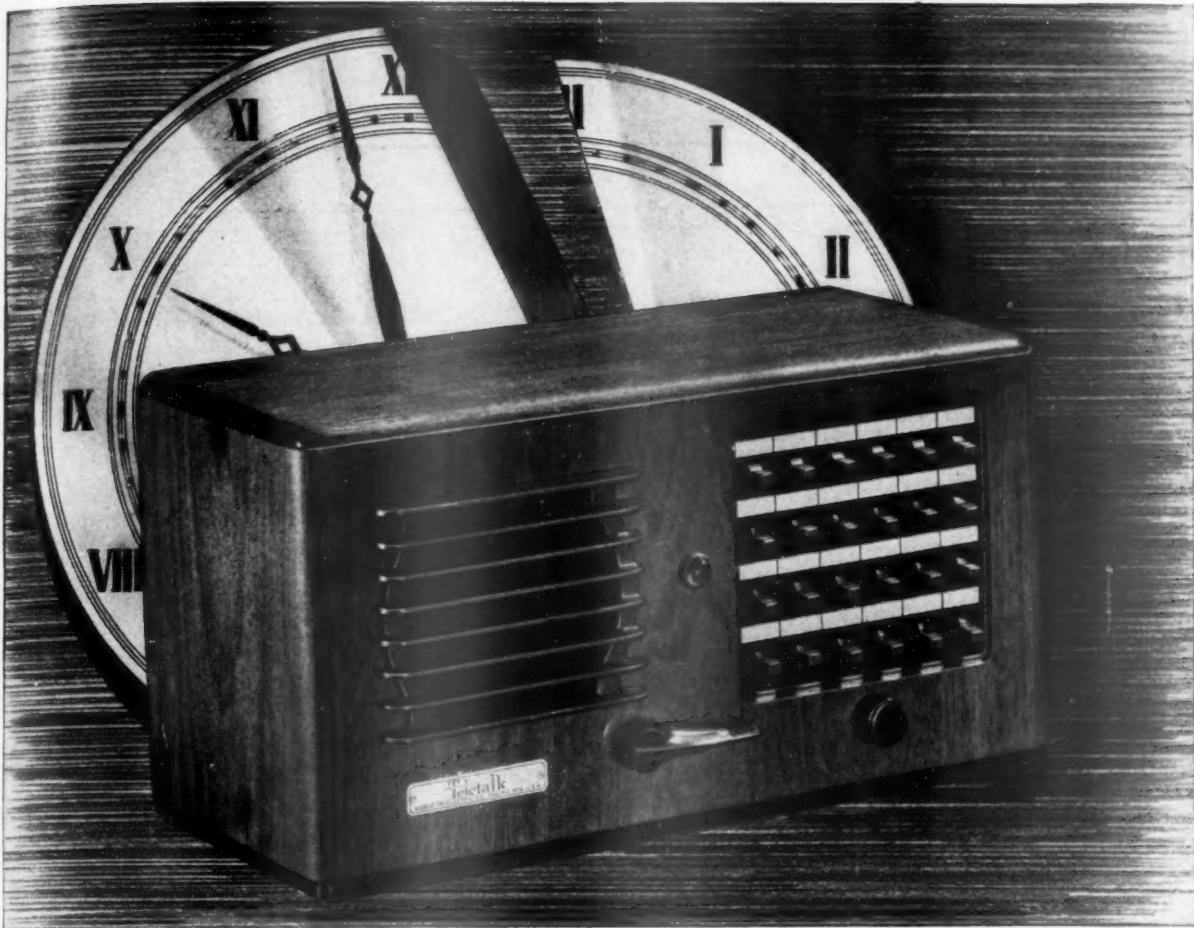
• **Seniority Claims**—In some instances, selection of workers on the basis of physical fitness may run afoul of seniority claims of former employees who insist that they are entitled to the first chance at a war job. In the case of General Motors, decisions by the umpire (the arbiter set up by agreement between company and union) have established: (1) that the employer's acceptance of the doctor's findings on a worker's fitness for a given job does not infringe seniority; (2) that the doctor's findings are not subject to review by the umpire.

Once the right man has been selected for a particular job, the doctor's next obvious responsibility is to do all he can to keep him there. Disability rates among factory workers are almost certain to gain appreciably, in spite of all the physicians can do. The problem, then, is one of holding lost time to a minimum.

• **Sick Absenteeism**—In 1941, sick absenteeism among male workers in the United States reached a new high—90 cases per week for 1,000 employees as compared to 81 in the 1936-40 period. Indicating that sick absenteeism will increase as older workers are pulled back into industry is the fact that General Motors male employees in their fifties average 50% more sick leave than the younger men.

Short-term absenteeism runs substantially higher for women than men. Moreover, the highest tuberculosis death rates today are found among women in the age group of greatest employability—from 15 to 24. In view of the increasing dependence of industry upon womanpower (BW—May 15 '42, p20), the implications for the plant medical practitioner are apparent.

• **Helping the Women**—AC Spark Plug has employed women for eleven years. Dr. Max R. Burnell reports that a pre-



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Teletalk saves time . . . makes communication between you and the other key individuals in your organization so swift and simple that work goes faster, with less effort.

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These basic functions of Teletalk Amplified Intercommunication are given additional value by the high fidelity of Teletalk voice transmission. Teletalk invites use because it is pleasant to use. And Teletalk is attractive in appearance as well. Cabinets are hand rubbed solid walnut, conservative yet

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There are models and special features to meet every organization requirement. System capacities range from 5 to 24 stations. Installation can be completed quickly and inexpensively. Cost of operation is negligible.

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# HERE'S HOW

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Industry's great reserve

... And passing it on to the men on America's production lines

## EDITORS say

### "VIBRATION CONTROL BY MEANS OF FLEXIBLE MOUNTINGS"

A Vibration Engineer discusses this important subject and supports the technical data with curve charts, schematic drawings and actual installation illustrations in a current issue of **PRODUCT ENGINEERING**.

### "CORRECT METHODS OF PLEXIGLAS INSTALLATION"

An authoritative treatise on the principles of successful Plexiglas (a transparent plastic) installations for the readers of **AVIATION**—April issue.

### "COMBUSTION CONTROL 'KEEPS 'EM ROLLING'"

An actual operations study describing the efficiency and safety of automatic multi-fuel boiler control in a war production power plant—in the April issue of **POWER**.

### "HOW TO GET THE MOST FROM V-BELT DRIVES"

"To get the most out of equipment is good sense at any time. Now it is also a duty. Here's down-to-earth advice on V-belt installation and maintenance" by a Research Engineer in the March issue of **FACTORY**.

## ADVERTISERS say

### "EFFICIENT VIBRATION CONTROL DEPENDS ON TWO FACTORS FOUND IN ALL LORD SHEAR-TYPE MOUNTINGS"

—says an advertisement in the same issue of **PRODUCT ENGINEERING**. The copy describes this company's products—includes full and cross-section illustrations—and offers a helpful booklet on "Vibration Control."

### "DRILLING PLEXIGLAS"

—is the headline of an advertisement by Behm and Haas Company in the same issue. A blue-print drawing shows correct drilling methods and the company offers a new 48-page **PLEXIGLAS Fabricating Manual**.

### "THE PROBLEM OF STRETCHING CAPACITY OF EXISTING BOILER EQUIPMENT"

The copy discusses Combustion Control, Boiler Water Level Control, Regulating Valves, Power Plant Instruments, and offers complete cooperation of the company's engineers.

### "V-BELTS ARE VITAL TO VICTORY—HELP CONSERVE THEM THESE WAYS"

A manufacturer lists six practical suggestions for increasing the efficiency and adding to the service life of V-belt installations—in an advertisement in the same issue.





# Advertisers are Mobilizing USEFUL INFORMATION...

● Unusual Samples? No! The pages of today's business and industrial publications are packed with helpful information for the men on America's production lines.

EDITORS are discussing processes, methods, short cuts — MANUFACTURERS are digging deep into their data files, tapping their reservoirs of research and experience and putting these findings into advertisements that take this vital information on from where it is to where it's needed.

## TODAY'S MOTTO IS "WHAT CAN I GIVE?"

Being helpful isn't a new idea. It's the normal function of a good business paper.

But the all-out conversion of peace-time industries to the production of implements of war has intensified the need for the kind of services that business paper editors and advertisers are so splendidly equipped to render.

*WHEN machines have to keep going 24 hours a day, seven days a week, maintenance is no longer just a problem—it's THE problem!*

*WITH millions of men—new "green hands"—working at jobs that are different from any they've ever had comes an imperative need for instruction, training, supervision.*

*WHEN thousands of technicians, and metallurgists, and draftsmen, and engineers are searching ceaselessly for new processes, alloys, applications—their proficiency is dependent, to a great degree, upon their supply of ideas, knowledge, helpful information.*

*WITH other thousands of key men in America's mighty army of Production facing an ever increasing complexity of problems the need for anything and everything that will contribute to their efficiency is vital.*

Yes vital to the winning of this war!

### Industry Looks to Its Own Lines of Communication

Business papers are vehicles of communication. They are edited for, and talk specifically to, men with mutual job interests.

Where else can you talk with the chemical engineer, on a common ground of technical understanding, but in the technical paper he reads.

Where can you discuss processes, products and services, informatively and helpfully, with the mining man, the metallurgist, the machine tool designer, electrical engineer, or any other of the key men in our great Industrial Army, but in those publications that are specifically designed to serve his basic interests, and to which he normally turns for help.

★ ★ ★

Every manufacturer possesses a vast reservoir of technical knowledge about his specific products and services. Are you digging deep into yours and contributing the kind of information that will be helpful to the hard-pressed men on America's production lines?

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- ☐ Engineers and Contractors Tell What They Want to Know About Building Products.

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#### TEXTILES

- ☐ How Editors and Advertisers are contributing to the Win-the-War Program—in TEXTILE WORLD.

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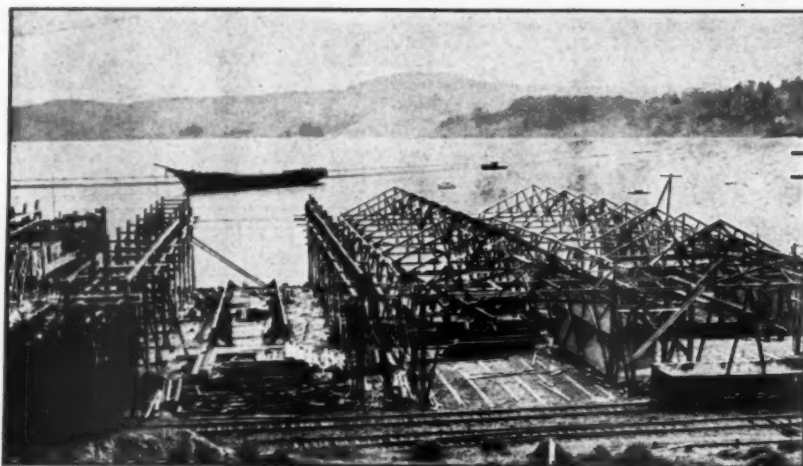
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## "CO-OP" SHIPYARD, INC.

With considerable ballyhoo, the Oakland Shipbuilding Corp., a "co-operative" enterprise formed by 65 veteran metal craftsmen, laid its first keel last week in the company's yard at Sausalito, Calif. (northward across the bay from San Francisco). It has a contract for building a number of small steel



employment examination is the first step toward proper placement. Emotional adjustment, which may be quite as much of a factor as physical adjustment in preventing absenteeism, is furthered by having older women act as matrons; also by the appointment of a girls' counselor (nurse) to whose private office the young women can go to discuss their troubles.

Hiring of persons long unemployed may be expected to increase sick absenteeism. They are more likely to have chronic disabilities, less likely to be participants in health or hospital insurance plans. Available data indicate that relief workers have averaged 65% higher sick leave for acute diagnoses than nonrelief

vessels for the Army and is attracting considerable attention as the first enterprise of its kind in the shipbuilding industry.

Contrary to the popular impression, it isn't really a cooperative. It is a stock company, incorporated Dec. 8, 1941, under California laws, with 65 stockholders, all of them shipbuilders and union members. Wages and conditions standard at all West Coast yards prevail at the new yard.

One feature of the yard, according to Devere F. Baker, president (a master shipfitter), is that it was laid out as the workmen themselves thought it should be, and the ships will be built in the same way. The men believe they will launch the first vessel in 28 days and "continue operating at a pace that will set a record in tonnage output per man."

Officers, in addition to Mr. Baker, (left), include Robert E. Oberer, vice-president, a boilermaker (seated), and Earl Harris, office manager. The secretary is Ernest Collins, a shipfitter.

workers; 40% higher for chronic ailments.

• **Factory Conditions**—The working environment itself can create problems of lost time. In 1941, in the rush to reach maximum arms output, fatal accidents increased 6%; nonfatal accidents 14%. With machines operating 24 hours a day, maintenance of equipment may suffer, thus contributing to a rise in accident frequency quite apart from the employment of younger persons lacking training.

Changes in processing methods and materials impose hazards. Because of the shortage of chemical solvents, more toxic varieties must be used. Sand must now be employed as an abrasive instead

of steel shot and grit. A rise in silicosis can be minimized if properly designed and maintained sandblasting equipment is employed. Metal parts for armament require much more grinding than peacetime products—introducing additional silicosis hazards. Production inspection of parts with X-ray requires that testing rooms be isolated from other departments and sheathed with lead.

• **Effect of Fatigue**—Knowledge of the effect of fatigue on absenteeism is scant. Recent British studies indicate that excessive hours of work lessen production, increase labor turnover, accidents, compensation costs, and the prevalence of "fatigue hookey." In Detroit, it has been found that skilled men working long hours seven days a week have produced no more work than in six days, although they have been paid for eight. The optimum work weeks for males are 40 to 44 hours for sustained war production, and not more than 40 hours for women.

Until now, industry has paid little attention to workers' eating habits and the bearing they may have on absenteeism. Some plants are finding it imperative to provide hot meals for night shifts. The subcommittee on nutrition in industry of the National Research Council is assembling factual data on this problem and has arrived at certain standards.

• **Inability to Spend**—One present-day factor in absenteeism may lie outside the doctor's province. Despite appeals to patriotism, some workers take time off because their earnings have risen and their opportunities to spend have been restricted. Deprived of such incentives as new cars and new radios, certain individuals prefer their ease on occasion, so long as they are making enough to pay the landlord and the grocer. Plants which are expanding rapidly, thus giving evidence that jobs will be plentiful, have an absenteeism record 90% above the rapidly shrinking plants.

To the discussion of worker health, Dr. Martin I. Hall adds the suggestion that the industrial physician should promote health conservation measures for managerial personnel—for the executive who may feel that he is too busy to consult his own doctor.

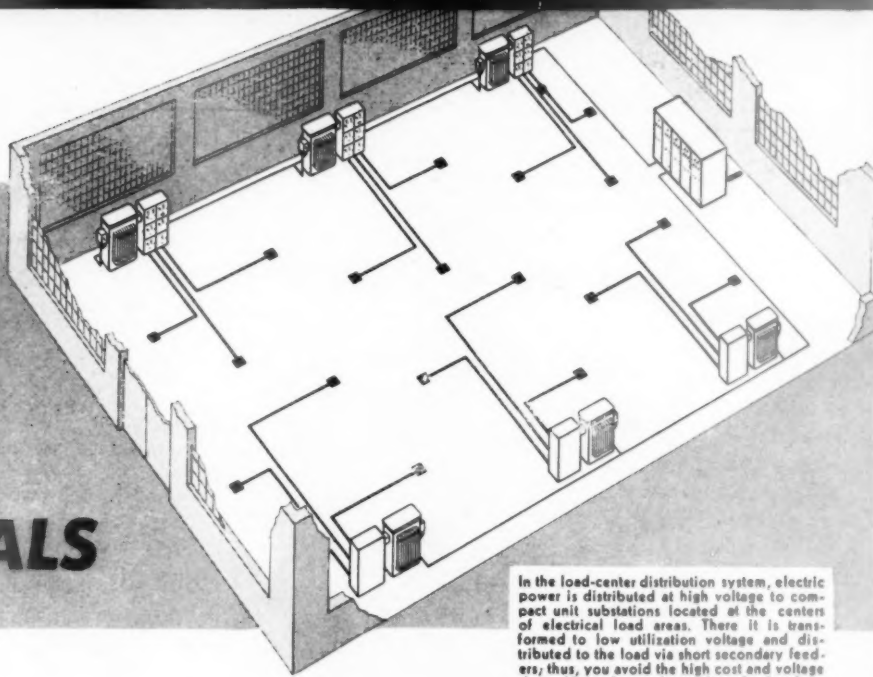
## PAY FOR COMMITTEEMEN

Firms which have established labor-management committees as suggested by the War Production Board should take note of the latest special ruling issued by the Wage-Hour Division. It provides that an employee shall be compensated for time spent as a voluntary member of such a committee when meetings are held during his regular working hours. Time devoted to meetings outside the employee's regular working period need not be accounted as hours worked.

**LOAD-CENTER DISTRIBUTION**

# The NEW and BETTER WAY to distribute ELECTRIC POWER

**SAVES  
TIME, MONEY  
AND  
VITAL MATERIALS**



In the load-center distribution system, electric power is distributed at high voltage to compact unit substations located at the centers of electrical load areas. There it is transformed to low utilization voltage and distributed to the load via short secondary feeders; thus, you avoid the high cost and voltage drop of long, heavy, low-voltage feeders from a distant substation.

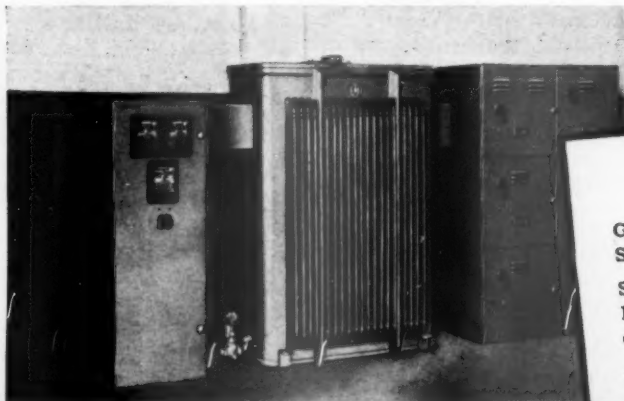
**H**ERE'S the answer to the pressing problem of providing a reliable distribution system, quickly and economically, in today's rapidly expanding plants—the LOAD-CENTER system.

Load-center distribution enables you to install a better distribution system in several weeks' less time, at lower over-all cost, and with far less copper and other vital materials than are required for an old-style system. Furthermore, the flexibility of your electric system is increased, engineering and planning time is reduced, and purchasing is considerably simplified.

Basic element of the system is the "packaged" load-center unit substation—a compact, factory-built, entirely co-ordinated unit that's delivered ready to install right in the same room with the machinery to be supplied with power. Thus, you can add substation capacity **WHEN** you want it and **WHERE** you need it, largely eliminating the high cost of long, heavy low-voltage circuits from a distant substation. Voltage drop, too, is greatly reduced, thus improving the performance of your electric equipment.

**LOAD-CENTER DISTRIBUTION IS FLEXIBLE**  
Four basic circuit arrangements offer various degrees of service reliability with corresponding variations in first cost.

Load-center unit substations, basic element of the G-E load-center distribution system, are quickly and easily installed (either indoors or outdoors) at comparatively low cost, and they're entirely metal-enclosed for increased safety.



General Electric and its employees are proud of the Navy award of Excellence made to its Erie Works for the manufacture of naval ordnance.

## FOR THE ENTIRE STORY

General Electric Co., Section F302-3  
Schenectady, N. Y.

Send me your bulletin (GEA-3758), "Load-center Power Distribution," which describes in detail how the load-center system saves time, money, and vital materials.

Name.....  
Company.....  
Address.....  
City..... State.....

302-3A-5800

**GENERAL ELECTRIC**



# MARKETING

## Price Education

**OPA launching campaign to initiate retailers into mysteries of posting and other details of newly imposed ceiling system.**

As expected, OPA has its hands full trying to educate the retailer in the intricacies of the General Maximum Price Regulation (BW-May 9'42, p27). From the mail that's been pouring into Washington ("it came by carloads," said one OPA official) it's apparent that the average merchant can think up scores of problems on which he wants a special ruling, and that his visualization of price-posting is dim at best.

• **Educational Campaign**—So OPA is embarking on an educational campaign. For the first step, a special retailers' guide (called Bulletin No. 2) has been issued to answer most of the broad questions and also to explain the new seasonal-goods price regulation which took effect this week. This over-all information will thereafter be supplemented thrice weekly by bulletins issued through the Trade Relations Branch of the Retail Trade and Services Division. About 165 retail trade associations and 100 wholesalers' groups will get such special material, and are expected to relay the contents to their customers.

While this information-publicity machinery is being geared up, OPA has remained strictly silent on the subject of subsidies. Vegetable canners, caught with higher raw material and labor costs, have been allowed to raise their 1942 prices about 15% over 1941 quotations (thus breaking through the March processor's ceiling) and the Department of Agriculture has offered to buy up any pack at 92% of the new ceilings. But this form of relief squeezes the profits of retailers, obviously can't be used in all instances.

Such by-passing of cash relief may well portend that OPA is seeking to avoid money matters. If, however, cash subsidies are needed in the future, it's quite possible that OPA will pass the financial ball on to the Department of Commerce and the Reconstruction Finance Corp. The former would handle payments in the food and textile field. The RFC, already tagged for the import subsidy job, would handle everything else.

One big virtue of such an arrangement is that these two agencies are experienced pleaders before Congress, would undoubtedly have less trouble getting subsidy money than OPA. But beyond such tentative thinking, the

## Seasonal Goods under Special Ceilings

The new retail regulation on seasonal goods covers special summer merchandise generally not sold during March. It provides the following method for establishing price ceilings:

The seller should determine the average cost of the commodity, or the replacement price after May 11, whichever is lower, and then apply the same average markup he used in the last selling season. If such an individual markup figure isn't available, the average markup for the whole department in which the commodity was sold may be used.

### MEN'S & BOYS' CLOTHING

**Bathing suits, trunks, and shirts.**

**Outerwear shorts.**

**Pullovers and cardigans of terry cloth and toweling.**

**Robes of terry cloth or toweling designed for beach wear.**

**Rubber bathing shoes and shoes designed exclusively for beach wear not having rubber or leather soles.**

**Straw hats:** hats made of any straw or cane fiber or any type of artificial or imitation straw or cane.

**Summer slack suits:** combinations of slacks and shirts, or jacket shirts, sold as a unit, made of any fabrics specified in the foregoing definition of summer sport trousers.

**Summer sport trousers, or slacks (other than work trousers),** which are washable; or which are made of fabrics of cotton, rayon, or other synthetic fiber, or any combination thereof; or of summer weight trousers fabrics containing not more than 15% of wool.

**Summer suits, and separate sack and sport coats,** which are washable; or which are made of fabrics of cotton, linen, rayon, or other synthetic fiber, or any combination thereof; or of summer-weight fabrics containing not more than 15% of wool.

**Washable summer hats, and beach helmets.**

**Washable summer neckties.**

### WOMEN'S & GIRLS' CLOTHING

**Bathing suits.**

**Beach bags:** bags with waterproof inner lining designed to carry beach wear or accessories.

**Halters.**

**Playsuits and sunsuits:** any combination of short or short skirt with blouse or bra-top, attached, or detached, and with or without a detachable overskirt.

**Robes of terry cloth or toweling designed for beach wear.**

By way of definition, "average cost of the commodity" means average cost of purchases between the close of the last selling season and the opening of the 1942 season or May 11, 1942, whichever is later. "Selling season" means the latest 90-day period within which the seller sold 75% or more of the total quantity of the same or similar commodities.

Incidentally, if a store customarily makes more than 5% of annual sales of one of the seasonal commodities in March, then the highest March price—not the special ceiling—applies.

**Rubber bathing shoes and shoes designed exclusively for beach wear not having rubber or leather soles. Washable hats of woven fabric.**

### GIRLS' CLOTHING

**Outerwear shorts, slacks, overalls, and slack suits of cotton or rayon.**

### INFANTS' CLOTHING

**Bathing suits.**

**Carriage and crib netting.**

**Straw or cloth sunbonnets.**

**Sunsuits.**

### FURNITURE

**Rattan, metal, and wood chairs, tables, settees, gliders, and umbrellas for outdoor or porch use and bench pads.**

**Rubberized or coated slip covers to protect outdoor furniture.**

**Summer rugs made of grass or fiber.**

### TOYS

**Rubber beach toys for use in the water.**

**Sand boxes and sand for children's play.**

**Toy sail boats.**

**Wading pools for children's play.**

### MISCELLANEOUS

**Awnings.**

**Boats:** sail, motor, rowboats, and canoes.

**Electric fans and ventilators and room coolers.**

**Flower boxes for growing plants.**

**Holiday novelties for summer holidays.**

**Picnic baskets.**

**Screen doors, window screens, and screening sold by the foot.**

**Slat shades, wooden, for porch use.**

**Sprinklers, for watering lawns.**

**Sun glasses.**

**Trellises and arbors, wooden.**



## 2,900 hours ago...

2,900 hours ago the parts of this ship began to take shape. Many of the first operations in its construction—the bending of the keel, the planing and forming of its plates—may well have been performed on machinery built by Baldwin. For Baldwin is one of the most important builders of heavy machinery which has long been indispensable to ship yards.

Aside from ship yard machinery, Baldwin produces propeller shafts, propellers, diesel engines, steering gear and hydraulic deck machinery used directly in ship construction.

Long recognized as an outstanding builder of locomotives, Baldwin produces a wide variety of machinery and instruments important not only to the railroads and ship yards, but to many other American industries.

Baldwin-built hydraulic presses are used for the rapid forming of airplane parts, the molding of rubber and plastics. Baldwin testing equipment, in widespread use through-

out the country, has made possible many of the design improvements so important to our planes, ships and other war materiel.

Today, Baldwin has a dual responsibility; first, as a builder of tanks, and other weapons for the Army and Navy and second, as a supplier of equipment to other industries which are vital to America's war effort.



# **BALDWIN**

*The Baldwin Locomotive Works, Philadelphia, Pennsylvania:*  
Locomotive & Ordnance Division; Baldwin Southwark Division;  
Cramp Brass & Iron Foundries Division; Standard Steel Works  
Division; Baldwin De La Vergne Sales Corp.; The Whitcomb  
Locomotive Co.; The Pelton Water Wheel Co.; The Midvale Co.

**Baldwin serves the Nation which the Railroads helped to build**

The sketches below indicate methods officially approved by the Office of Price Administration; photographs show how they have been adopted by Whelan Drug Stores, New York City (upper left); S. Kann Sons, Washington, D. C. (lower left); and R. H. Macy & Co., New York City.





subsidy problem remains virtually unscratched.

• **Recommended Systems**—With respect to the posting of prices, OPA has worked out a series of 'recommended systems' (page 68) and advised that they should be followed as closely as possible. The prime object of these systems is high visibility. By the same token, a retailer may not bury his ceiling prices in books, sheets overlapping each other, or catalog-like documents, although OPA has agreed temporarily to blink at such deviations from its prescribed posting pattern. The posted prices must be close to the merchandise to which they apply, or directly on the goods.

Posting, of course, is mandatory only for "cost-of-living" commodities, but a retailer may—if he thinks it advisable—post any other prices. He may also display price ceilings on the merchandise in his windows (provided he similarly posts the prices inside the store), and he can even put up a list of goods exempt from the regulation.

• **Helping Hands**—While price-posting is not a complicated procedure, its novelty has created a good deal of confusion, and OPA is now fervently hoping that manufacturers and wholesalers will come to the rescue. Some wholesale groups are already supplying retailers with neatly-printed posters, the payoff being that the wholesaler puts an advertisement at the foot of the poster.

While this advertising trend has all the earmarks of rapid growth, OPA isn't concerned about that phase of it so long as the posters meet all the requirements of the regulation. (Note to wholesalers and manufacturers: If you supply your dealers with posters, let them fill in their own price ceilings. If you do it, it may be construed as collusion.)

• **Methods of Marking**—In posting cost-of-living prices, a dealer must mark them on the commodity itself, or display them over racks, counters, bins, etc. For certain lines, notably textiles and furnishings, the prices may be posted by lines, but additionally each item must be individually marked.

**Illustration I** shows a suitable marker for related lines of branded goods—such as dentifrices, tobacco products, canned goods, soaps. Where these are physically grouped together in a store, the single marker will suffice for each related line so long as the price of the various brands is plainly shown. Incidentally, the marker itself need not look like the placard in the illustration. It could be a sheet pasted to the counter, or any other device plainly visible to the purchaser.

**Illustrations II, III and IV** indicate that where all merchandise on a counter, bin, or table has the same price, that ceiling price—without further detail—is all that has to be posted. No individual price tags needs to be placed on the merchandise in this instance, even if the regulation ordinarily specifies individual

## The Rope Business is not "as usual"

*... definitely not!*



U. S. Landing Party leaving ship on Rope Ladder

The rope business became very *unusual* on December 7th, when shipments of Manila fiber suddenly stopped. It kept getting more and more *unusual* as the Japs moved into the East Indies, prime source of sisalana fiber. Our two-ocean Navy, our Army, our war production—need rope as never before.

**It's up to you** to save rope. You yourself may never handle a piece of rope—still you can save it by asking your workers to make rope last longer through proper care.

**"Making Rope Last Longer"** is a Plymouth booklet that will do much to prolong rope life IF—employers

urge workers to use it as a guide... if distributors, dealers, and salesmen pass it on to their customers.

**This is no time** to sell rope, or use rope, *as usual*. Write for your FREE rope conservation material today to Plymouth Cordage Company, North Plymouth, Massachusetts, or Welland, Ontario.

### What Is "Wartime" Rope?

**Manila rope** is restricted to war use only. Plymouth "Wartime" Rope is made of best available fibers, for civilian needs. Except for a few very special uses, \*Plymouth "Wartime" Rope will serve satisfactorily.

\*As outlined in War Service Book No. 3—Free copy on request.

**PLYMOUTH**  
**ROPE FOR INDUSTRY**  
BINDER TWINE • TYING TWINE



## WHEN PROMPT DELIVERY COUNTS SO MUCH

**NOW**, when your products are so urgently needed, you can profit by the ready availability of the Torrington Needle Bearing. As a result of Torrington's expansion program, Needle Bearings in standard sizes and types can be promptly delivered on all priority orders!

You can benefit, too, by the Needle Bearing's other features—features that simplify your designs and speed your production processes. Consider these advantages of the Needle Bearing—and see how every one of them fills a wartime need.

**IT IS EASY TO INSTALL.** Built as a single compact unit, the bearing is simply pressed into place in the housing—a quick operation ideally suited to high-speed production line methods.

**IT CONSERVES OTHER MATERIALS** on which you may be encountering delivery problems. Because of the Needle Bearing's

small outside diameter, you can reduce the size of your housings, and hence the amount of material required.

**IT ELIMINATES EXTRA PARTS AND ASSEMBLY STEPS.** No retaining rings, washers, or end plates are needed to hold the bearing in place—and in most applications, no special lubricating equipment need be provided.

**AND IN PRODUCT PERFORMANCE,** Needle Bearings offer the advantages of long life, high load capacity, low power consumption, minimum need of service attention.

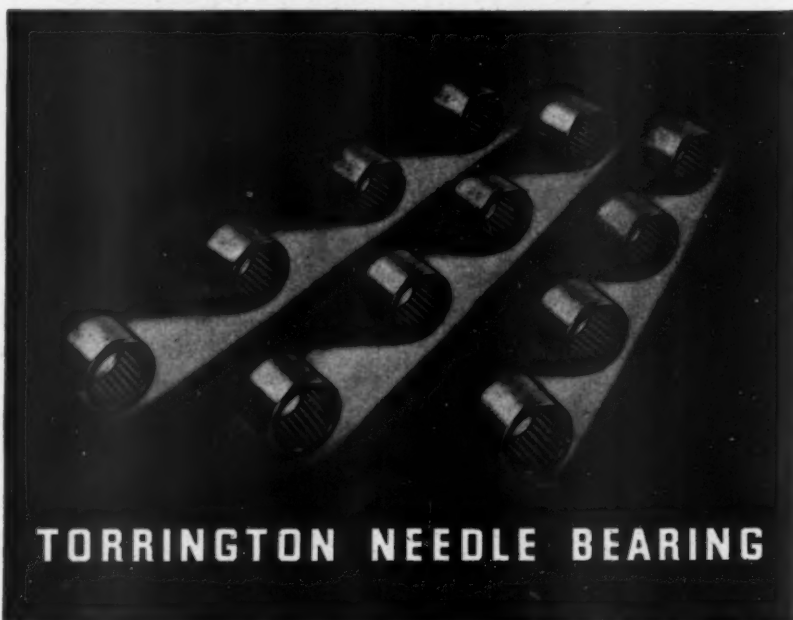
Let a Torrington engineer show you how these features, demonstrated in thousands of peacetime applications, can be incorporated in your wartime designs. For details, write, wire, or phone for special application book listing many typical uses.

### THE TORRINGTON COMPANY

Established 1866

TORRINGTON, CONN., U. S. A.

Makers of Needle and Ball Bearings  
New York Boston Philadelphia Detroit  
Cleveland Seattle Chicago  
San Francisco Los Angeles Toronto  
London, England



#### LONG SERVICE LIFE



High load capacity and efficient lubrication of the Torrington Needle Bearing result in long service life on the valve rocker arms of Model 36 Diesels built by Fairbanks, Morse & Co. Bearings reduce the need of replacements and of other service attention.

FAIRBANKS, MORSE

#### HIGH EFFICIENCY



Efficiency and dependability of operation are essential in railroad auxiliary equipment. Safety Car Heating & Lighting Co., Inc., obtains these advantages by using Torrington Needle Bearings on automatic control valves of its Carrier-Safety air conditioning systems.

SAFETY CAR

markers. For it is perfectly clear that the ceiling price applies uniformly to each and every article.

Illustration V shows how the word "ceiling" or "our ceiling" must appear on price tags where such are used in place of posters. It is important to note here, however, that if the actual sales price differs from the ceiling price, the ceiling must invariably be shown. The actual sales price may be shown optionally.

Illustrations VI and VII further demonstrate the rule that where there is a ceiling price and an actual sales price, the ceiling price must positively be shown, and the sales price may or may not be shown. In Illustrations VI and VII both are indicated.

Illustration VII demonstrates how those cost-of-living commodities which may be posted by price-lines are to be handled (this type of commodity is marked with an asterisk in Appendix B to the General Maximum Price Regulation). In this instance, three brands of shoes—each selling at a different price—are grouped together. The marker shows the various ceilings. Additionally, each pair of shoes must bear an indication, or marker, of its selling price (this need not be the ceiling price unless the two correspond).

• **Additional Data**—Other OPA rules and rulings during the past 10 days include the following:

The date of filing cost-of-living ceiling prices with War Price and Rationing Boards has been changed from June 1 to July 1.

Here is the proper format: Use 8-by 10½-inch standard letter size paper, and type or write in ink. "Give the name of each commodity, manufacturer's name (or code or style number), any other identification, and ceiling price. Thus: "Women's hosiery; Wear Long Mills (or No. 72, style 175); all silk, full fashioned; \$1.69." In the case of foods, give size of unit and grade. Thus: "Fresh milk; Milktime brand; 1 qt.; grade A; 12¢."

• **Delivery Service**—Contrary to earlier OPA statements, a store may not make an extra charge for delivery services. However, deliveries may be curtailed or stopped without changing prices.

Fair-trade contracts or Unfair Practices Acts requirements are superseded by the Regulation. That is, if a retailer's March prices were lower than fair-trade prices, he cannot now raise them, nor can a manufacturer change his contracts so as to interfere with March prices. Similarly, all government agencies—like state liquor authorities, the Army, etc.—must abide by the terms of the Regulation, unless specifically exempt.

• **Dual Branding**—If a retailer during March sold identical merchandise under two brand names at two prices, he can't change that arrangement now. That is, he can't boost the lower price to the

level of the higher price. And if he adds a third, new brand to this line, he must sell it at the low price because "it has no advertising history, trade usage, or public acquaintance to enhance its value." (This ruling is important to private-branders selling the same goods under different labels in the same store.)

Any reduction in the quantity or content of an article must be accompanied by a proportionate reduction in price.

OPA's list of state and regional offices is now complete. This list will be found in Bulletin No. 2 entitled, "What Every Retailer Should Know about the General Maximum Price Regulation."

## X Marks the Price

And also the spot on which big mail-order houses find themselves as result of Washington's three-weeks-old freezing order.

Executives of the big mail-order and chain-store organizations were this week still a bit foggy about just what the three-weeks-old price-freezing order would mean to them. Reasons for their uncertainty were obvious.

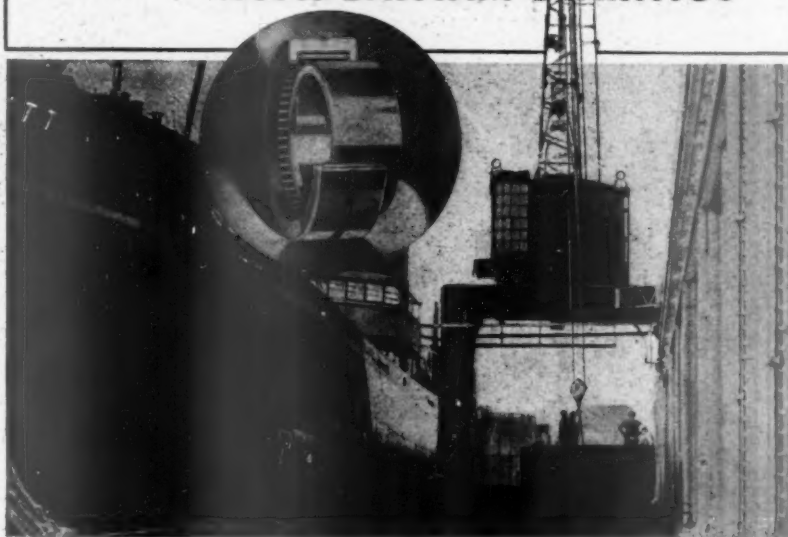
• **Complicated Pattern**—Their retail stores handle perhaps 25,000 different items, their catalogs list maybe 100,000. Despite basic cost lists and mark-up schedules, the buying costs of these merchandise items vary with the geography of sources and freight rates, and the selling prices vary not only with the delivered cost on the shelf but also with conditions of local competition.

Sears' big State Street store, for instance, in aggressive competition with the go-getting Goldblatt Bros. just across the way, might have offered all through March a standard housedress at \$1.89, while selling the same item for \$2.24 in its six other Chicago department stores. The identical number may have been offered in all of the company's spring-summer mail-order catalogs. But it would be not at all improbable that this dress was sold at \$1.92 from Sears Eastern plants, at \$1.95 from its Middle Western plants, and \$1.98 from the Far Western plants.

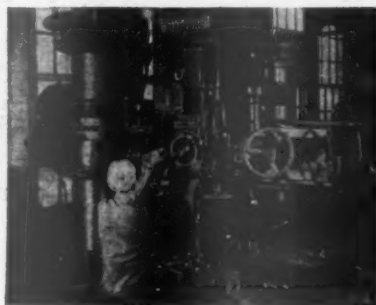
• **Headache on Grand Scale**—Consequence of this indescribably complex situation is a headache on the grand scale. One major chain's legal department had, at the week end, issued to merchandising executives above the rank of store manager successive series of bulletins, interpretations, and appendices totaling 53 single-spaced typewritten pages.

Another chain had had at least one of its upper-level merchandise executives in Washington in search of clarification from the moment of the order's issuance. And, scurrying back and forth

## IN THE NEWS WITH BANTAM BEARINGS



**SPEEDY SHIPMENT OF WAR MATERIALS** is a factor of vital importance in the program of the United Nations. Supplies are quickly loaded on shipboard by this giant revolving gantry crane built by American Hoist & Derrick Company. Crane is equipped with three hoisting drums, one lifting 15,500 pounds at 300 feet per minute, the others with a capacity of 10,000 pounds at 270 feet per minute. 20 Bantam Bearings are used on travel mechanism and on wire rope blocks—another instance of the ways in which Bantam Bearings serve every phase of the Victory program.



**MACHINE TOOLS THAT MAKE MACHINE TOOLS** are speeding wartime production. These Super Service Radials built by The Cincinnati Bickford Tool Co. are working 24 hours a day, 7 days a week, helping to turn out turret lathes, other tools and equipment. Bantam Quill Bearings in these machines facilitate travel of the head along the arm.



**OIL WELL PUMPING UNITS** are working overtime these days and Bantam Quill Bearings, used by leading manufacturers, assure quiet, efficient operation, long life, minimum need of service attention. Cabot Shops, Inc., installs these compact, high-capacity units on equalizer and center bearings of its larger pumpers to obtain anti-friction construction throughout.

**BANTAM'S ENGINEERING EXPERIENCE** covers the design and application of every major type of anti-friction bearing—straight roller, tapered roller, needle, and ball. For help in the selection of bearing types that meet your particular requirements, TURN TO BANTAM.

# BANTAM BEARINGS

STRAIGHT ROLLER • TAPERED ROLLER • NEEDLE • BALL

BANTAM BEARINGS CORPORATION • SOUTH BEND • INDIANA





## A BAKER MATERIAL HANDLING ENGINEER can help you to . . .

1. Increase Plant Capacity
2. Conserve Man Power
3. Speed Your Deliveries
4. Cut Production Costs
5. Improve Plant Safety
6. Plan Future Material Handling Requirements

All Baker representatives are qualified material handling engineers. They have been in hundreds of plants, and know intimately the problems confronting you wherever materials or finished products are to be moved. Their experience goes far beyond the use of power trucks—they can evaluate your complete handling set-up, and recommend equipment best suited to your plant. If you are after any of the above objectives, call on the Baker representative nearest you.

### Typical Case of Baker Material Handling Engineering Service

Recently a manufacturer, contemplating plant expansion, called in a Baker Engineer to discuss truck requirements. After a complete survey, the production objectives were achieved without plant expansion, by a readjustment of material handling facilities and the addition of new equipment, thus avoiding the expense and inconvenience of new construction.



**BAKER INDUSTRIAL TRUCK DIVISION of the Baker Raulang Company**  
2164 WEST 25th STREET • • • CLEVELAND, OHIO

# Baker INDUSTRIAL TRUCKS



## I like to travel, too

If you are getting ready to swap your address for a new one, be sure Business Week (that's me) comes along.

I start out from Albany, N. Y., every week and I can trail you to your new spot just as easy as I've been making the old one. And I'll like it, too.

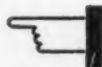
All you have to do is give me orders . . . like this:

Circulation Dept., Business Week, 330 W. 42nd St., New York City

Please change my address: NAME.....

OLD ADDRESS.....

NEW ADDRESS.....



between the Potomac and the foot of Lake Michigan, were assorted representatives of OPA and officials of the Mail Order Assn. of America, all trying to straighten out the tangles and clear up the muddles.

• **Replacement Costs**—A fortnight after the order had been published, the big companies were not yet sure what all of their replacement costs would be. Suppose that the A Mfg. Co. is an important source of widgets. Suppose further that Ward's during last January contracted with this source for 100,000 doz. widgets at \$10 per doz., for delivery at the rate of 10,000 doz. per month. Ward's may not safely assume that under the terms of the ceiling price order Manufacturer A will have to meet a ceiling price of \$10.

Maybe Mr. A was also selling Sears and J. C. Penney, both of which might be considered customers of the same class. Maybe one of them did not make up its corporate mind until February, hence had to sign up at \$10.50 to assure its 1942 supply of widgets. If so, Ward's will have to pay \$10.50 for widgets, or find a cheaper source. At midweek all of the big fellows were trying to find out what their ceiling costs would be, so that they might adjust their plans accordingly.

• **Buyers' Worry**—Department buyers, some of whom have come face to face with the situation, are scared stiff of what might happen if a manufacturer upon whom they have traditionally relied for, say, baby buggies should not wish to continue selling to them. He has, presumably, sold baby buggies to the big buyers at prices lower than to folks who bought them in smaller quantities. Now, with materials tight, he can make only 50% as many units as before, and his smaller customers are eager to buy these at the prices they paid in March. Under such circumstances, it is conceivable that he might wish to divert to the higher-price, small customers all of his output, leaving the big fellows washed up on a lee shore.

• **Top Men More Hopeful**—Upper-level merchandise executives are less worried than their subordinates, doubt they will be much plagued by this type of unwilling seller, because he will always have to figure on where he is going to sell his factory capacity when materials and restrictions are again easier.

Some of them think that the source is legally obliged to provide for his big customers the same percentage of his total output as they have customarily taken, and feel pretty confident because their typical primary source has been supplying them for years on end. Others think that OPA will force him to take care of them, because failure to do so would raise the average selling price level of his total sales. A few are reconciled to losing his merchandise, but think that the aggregate loss from such

defections of manufacturers will be negligible.

• **Time Factor**—Special problem arising in connection with the catalog mail-order business pivots on time. Mail-order men represent to OPA that the spring catalog prices they were using in March were actually set in the previous November, that hence they deserve special consideration. Early this week most of them felt reassured by OPA informal commitments to let them price fall catalogs with the benefit of adjustments to bring them abreast of March market levels.

Washington reports had it that Sears had already made application which was receiving generally favorable attention, that Chicago Mail Order Co. and Spiegel were in session with OPA men at Chicago and had pretty well made their point, that Ward's was unaccountably holding back with apparent reluctance to request special consideration.

• **An "If" for the Field**—If it should happen that Ward's persists in using November-set spring-catalog prices as its retail ceilings, then obviously Washington-ordered relaxations would be of little advantage to the rest of the houses in this highly competitive field.

Mail-order price ceilings are far simpler than retail-store ceilings for the big organizations to ascertain and enforce. In setting ceilings, each store of a chain and each mail-order plant is a unit unto itself. But, for compliance, the entire corporation is a single unit. Thus, the ease of controlling catalog-plant prices is dandy, but the chances of a store manager incurring a penalty are a nightmare.

• **Centered Responsibility**—In WPB's recent crackdown upon all General Motors truck manufacturing operations as a penalty for what was reported to be a violation by only one division, Washington indicated its willingness to hold top management of a nationwide business responsible for deputies' misdeeds.

Although OPA treats each unit of a chain as a separate store for purposes of determining ceiling prices, nonetheless it might want to pin a violation in Oshkosh on headquarters in Chicago. It all depends on the circumstances, and now a court-petitioned by OPA for license suspension—views the matter.

• **Reluctant to Prophesy**—As yet, the big firms do not know just how badly they will be squeezed. They do know that gross margins and net profits are bound to shrink. And they are understandably reluctant to prophesy the consequences to service. They all know that they will have to curtail service to maintain an acceptable margin. Don't be surprised, when shopping six months from now, if you find sales clerks fewer, and have to wait for attention. Don't worry if mail-order shipments fail to snap back by return mail. Even though the goods are in stock, it may take a week to fill orders. It's that or red ink for the mass distributor, he is convinced.



## SO THAT *Power* CAN ADVANCE TO VICTORY

**D**ODGE Rolling Bearings are on 'round-the-clock Victory duty — serving at strategic points along the power roadbeds of industry—"cushioning" balky power on all types of drives — fighting off friction—delivering power without dissipation — they are towers of strength at points of wear — assuring unbroken operation for the "duration."

Dodge Rolling Bearings are designed for a life expectancy of 30,000 hours under conditions for which they are adapted. High speeds — shock loads — heavy, medium and light duty — dust — moisture — heat — all of these service

conditions are taken in stride. Their ruggedness and stamina enable them to meet today's sustained production peaks.

Depend on the Dodge Complete Line of Power Transmission equipment — bearings, couplings, clutches, sheaves, pulleys, V-belts for unfailing delivery of power on Victory production lines — depend on Dodge distributors for prompt delivery of standard products from stock and for constructive assistance in the right application of the drive to the job — depend on Dodge for "The Right Drive for Every Job."

**DODGE MANUFACTURING CORPORATION**  
Mishawaka, Indiana, U.S.A.



THE RIGHT DRIVE FOR EVERY JOB

## Auto Parts in Jam

Manufacturers, surprised at their inclusion under Price Regulation 136, want base set in January, not October.

Ironing the kinks out of the price order on machines and parts for its effective date—May 18—was just too much of a job for Leon Henderson's boys in the Office of Price Administration, so they put the deadline over to June 1. And it's altogether likely that the shrill shrieks of the automotive parts makers had a lot to do with the postponement.

• **Order Broad in Scope**—The ceiling on machines and parts, embodied in Maximum Price Regulation No. 136, was a sweeping affair designed to cut back prices to the levels of Oct. 1, 1941, on literally scores of important industrial machines and their parts. The OPA's sample listing, designed to give an idea of what the order was supposed to regulate, included these categories:

Prime movers, such as diesel, gasoline, and kerosene engines.

Industrial power apparatus like boilers, stokers, and soot blowers.

Tools of the hand-operated or perishable types.

Machines for working and fabricating

materials, from cotton ginning to wire drawing.

Construction and mining machinery.

Electrical equipment.

Railroad equipment.

Auxiliary industrial equipment like air-conditioning systems, lubricating systems, material handling equipment.

Miscellaneous items from crawlers to measuring instruments.

Parts and subassemblies, ranging from axles through gaskets to spark plugs.

• **What Are Machines?**—Right off the bat, the automotive parts people took it for granted they were not included under Price Regulation 136. In the first place, the order came from the wrong OPA section—Machinery instead of Automotive. For another, they didn't figure they were making parts for machines except as they had converted to machines of war which presumably were not tampered with.

They learned, however, in letters from Henderson, that they were mistaken. The Machinery Section very definitely had undertaken to broaden its jurisdiction, because it had ruled that automobiles and trucks were to be defined as machines, and suppliers of parts for such vehicles became subject to Regulation No. 136.

• **Parts Makers Fear Pinch**—That threw 800-odd plants into a dither. These parts makers, most of them working very largely on war jobs, felt they were



## BLACKOUT IN TRANSIT

In the event passenger trains are asked to black out, the Reading Railroad has developed an idea which can be put into operation in a jiffy. By the simple expedient of painting a four-inch wide black stripe inside the windows, and drawing the regular shades, no inside light (dimmed during blackouts) is visible outside. Vestibule windows are painted solid.

squarely in the middle. The OPA doesn't regulate prices of prime contractors on military vehicles and armament because these orders are subject to negotiation; yet the prices of subcontractors are pegged, apparently to prevent higher costs of making parts from being passed on down the line to the finished product on cost-plus contracts.

No single government regulation in recent months has caused as much consternation as did No. 136, in the opinion of Frank Rising, general manager of the Automotive Parts and Equipment Manufacturers, Inc. Long-distance telephone calls came in an unending stream as parts makers throughout the Midwest and East sought information on how they would be forced to operation. Many shortly became convinced they would have to go out of business.

• **Objections to Base**—Wide resentment was caused by the selection of Oct. 1 prices as the base. This was chosen, the automotive parts people presume, because makers of certain types of machinery raised their prices around that date, and OPA figured if these manufacturers were agreeable to a freeze at those levels, everybody should be.

The automotive parts people argue, however, that some date along in Janu-

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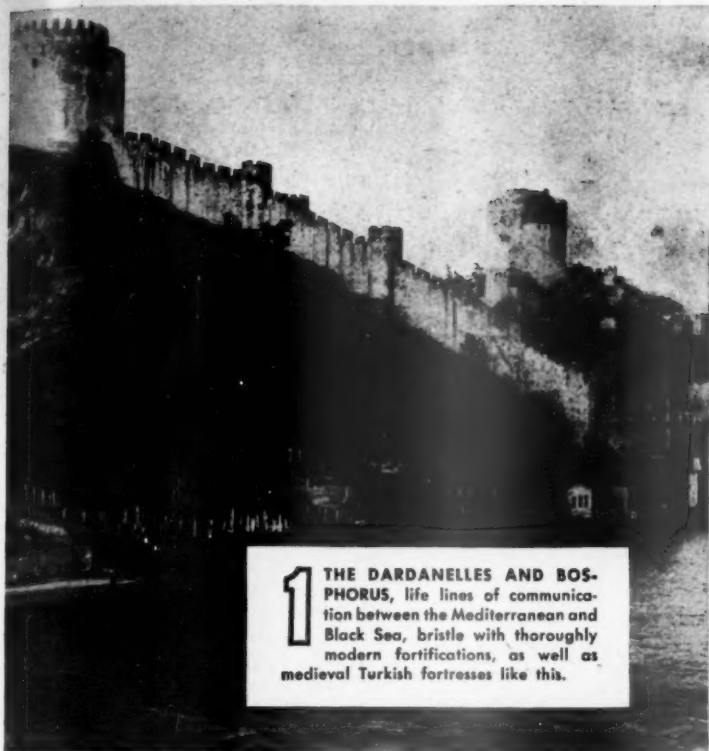
WRITE FOR INFORMATION Dept. BW 5

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# FAMOUS LIFE LINES



**1** THE DARDANELLES AND BOSPHORUS, life lines of communication between the Mediterranean and Black Sea, bristle with thoroughly modern fortifications, as well as medieval Turkish fortresses like this.

European



**2** U. S. ARMY SEARCHLIGHTS, such as this, more and more frequently have their life lines—lubrication lines for trailer and for power generating units—made from Bundy Tubing.

Photo by U.S. Army Signal Corps

WHEREVER you find the armed forces of the United Nations, there you find Bundy Tubing giving the utmost in strength, in ductility and in resistance to vibration fatigue.

American tanks, with fuel and lubrication lines, conduits, and hydraulic turret and brake tubes by Bundy, are striking telling blows on half a dozen fronts. American planes, with various engine and propeller parts of Bundy Tubing, are proving their superiority in far-flung operations from the icy north to the steaming tropics.

More than forty types of American made military vehicles with an average of twenty or more Bundy Tubing parts are standing up under gruelling pun-

ishment all over the world. In fact, wherever fuel or lubricants or refrigerants must be carried—wherever vacuums are necessary or hydraulic pressures must be transmitted—Bundy Tubing is on the job.

For hundreds of mechanical and structural applications, too—for radios and antennae, for flag staffs and parachute rip cord grips, in expeditionary gas cans and in ground and parachute flares, in dozens of other spots where light weight and strength are essential—Bundy Tubing is a frequent choice.

To learn how Bundy Tubing may be adaptable to your war production needs, write Bundy Tubing Company, Detroit, Michigan.

## BUNDY TUBING



ENGINEERED TO YOUR EXPECTATIONS



**BUNDYWELD** double-walled steel tubing, hydrogen-brazed, copper-coated inside and outside. From Capillary sizes up to and including  $\frac{1}{4}$ " O. D. This double-walled type is also available in steel, tin-coated on the outside, and in Monel.



**BUNDY ELECTRICWELD** steel tubing. Single-walled—butt welded—annealed. Also furnished tin-coated outside if desired. Available in sizes up to and including  $\frac{3}{4}$ " O. D.



**BUNDY "TRIPLE-PURPOSE" MONEL** tubing. Double-walled, rolled from two strips, joints opposite, welded into a solid wall. Available in all Monel, Monel inside—steel outside, and Monel outside—steel inside. Sizes up to and including  $\frac{3}{4}$ " O. D.



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Anti-aircraft fire seldom makes a direct hit. But a chance shell fragment can be just as disastrous. That's why pilots carry all possible safety equipment, especially a parachute . . . "just in case."

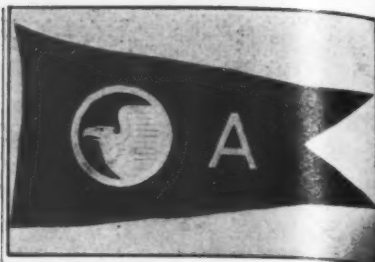
These are dangerous days for business pilots too . . . days when every manufacturer and wholesaler needs safety equipment against unexpected events.

Your normal safeguard against credit losses is your efficient credit department. But the abnormal credit risks of these ominous days place an added strain on even the finest and best-equipped credit departments. The War is causing changes overnight . . . changes which may seriously affect your business . . . or the business of your customers . . . which may cause severe credit losses.

#### The best protection against severe credit loss is **AMERICAN CREDIT INSURANCE**

An **AMERICAN CREDIT** policy is the strategic defense employed by thousands of manufacturers and wholesalers to protect working capital and profits against unforeseen credit losses. **AMERICAN CREDIT** guarantees payment of accounts receivable . . . guarantees reimbursement for losses caused by the insolvency of customers.

Write Dept. 'B-5 for your FREE copy of our new brochure "*The A-B-C of Credit Insurance.*"



#### ARMY'S AWARD

The announcement of an Army "A" flag—to be awarded for meritorious production or construction for the War Department—should please many executives and employees alike who have long been envious of Navy "E" flags waving over neighboring plants, and "E" lapel buttons proudly displayed by their workers. The Army's "A" flag is the same size and shape as the Navy's banner. Employees' lapel buttons go with it.

any would be much fairer to them—and they have some hope that their pleas will prevail. Basic in their stand is the fact that there are just about as many price policies in their field as there are manufacturers. The resulting situation is something like this:

Company A surveys costs frequently, adjusts prices to correspond. Company B sets prices twice a year—say, in April and November. Due to increasing costs, its profit margin may have dwindled since last October, and the April, 1942, price schedule seeks to recover ground in the months ahead. Under the order Company B is set back two thirds of the way to prices quoted a year ago.

• **Some Other Examples**—Company C makes a standard item year in and year out. It knows its costs thoroughly, keeps prices in line. On the other hand Company D makes a universal joint for military trucks. That is a jobbing proposition, because specifications are changed with each increase in weight or power of the truck, or because a new type of vehicle is wanted by the Army. The universal joint made today requires a new processing layout, new tools. It is still a universal joint to the layman, but a new undertaking for the parts maker. The same can be said for carburetors.

Tool and die suppliers to the automotive industry understand that the order affects them, and that some of them will be forced out of business if a satisfactory amendment to the order is not promulgated by Henderson. Everyone knows what has happened to labor costs in the tool and die industry since Oct. 1. At that time the defense program was child's play compared to the war production program. Hourly rates have since

prepared and tool and diemakers are offered all the overtime they can stand. **Amendment Awaited**—So serious do the parts makers regard the situation that they have been camping on OPA's doorstep—were in Washington for a conference as recently as midweek. Awaited with much interest is an amendment to the order which Henderson has promised, an amendment "affecting parts and subassemblies important in the war production program." This, to encourage production at least of some items, is expected to allow some leeway on prices.

## Foods for Sale

Retailing isn't yet a story solely of shortages. Farmers still have surpluses to move as "Victory Food Specials."

For a change from shortage talk, food trade representatives and Agricultural Marketing Administration officials on May 13 gathered at Washington to take up the refreshing topic of gluts.

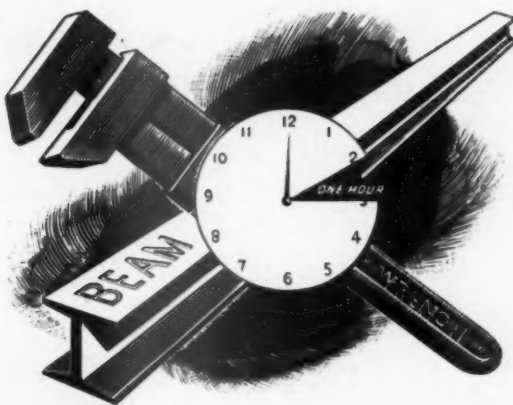
They were definitely not fooling. Prospects are that a number of crops this year will be heavy enough to require special disposition.

**First Special: Lettuce**—In fact, the wheels are already in motion. Henceforth any crop that develops symptoms of oversupply will blossom over the nation's entire grocery store system as a "Victory Food Special" and be pushed, it is hoped, by every clerk, owner, and manager. Number one VFS is lettuce.

On May 6, the nation's merchandisers were told to expect a lettuce crop a quarter larger than last year and a half larger than the ten-year average. The lettuce would reach grocery windows in heaviest volume between May 11 and May 25, and AMA would thereupon (1) make available to all storekeepers the VFS placard, (2) shower the trade with releases urging stepped-up use of lettuce, (3) send recipes for lettuce dishes to extension service and other home economists, and (4) plug lettuce in all radio programs where either government extension service or commercial home economists can be convinced that consumers should turn over a new lettuce leaf.

**Reversal in Onions**—The second VFS merchandising drive will be on onions, from June 8 to 15. The new crop of North Texas onions is double last year's and one-half larger than average, reversing the recent onion shortage that has unified national conversation. Other crops due for a consumer push to white too-heavy supplies are early potatoes, early peaches, Pacific Coast cherries, California plums, broilers, and fryers.

On the informal side, the AMA will back up the drives with shelfside chats



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Build your own. With a 'Budgit' Crane Assembly, an I-beam, a wrench and an hour's time you can complete a Swinging Bracket Jib or a Bridge Crane. No machine work—no drilling is required. A wide variety of capacities and sizes can be built with 'Budgit' Assemblies.

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day you order. You may operate your crane the day you receive the 'Budgit' Assembly. This new method of buying small cranes saves money, cuts down transportation costs and guarantees you quick delivery for defense work. Complete instructions accompany each Assembly.



Write for Bulletin 352 which contains full information of this quick, economical way to acquire jib or bridge cranes.

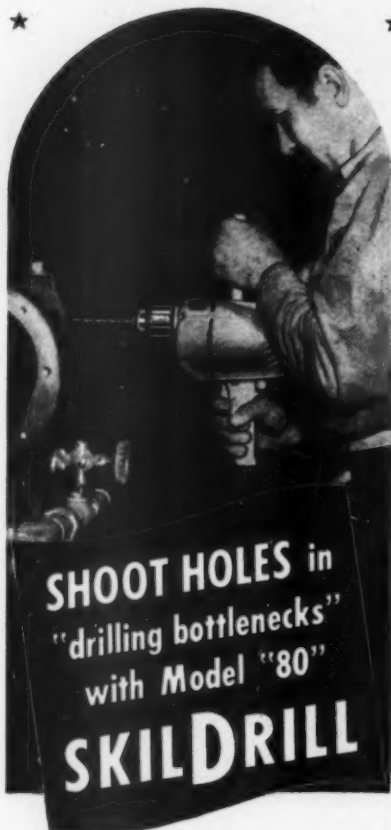


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Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load-Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves. Consolidated Safety and Relief Valves and 'American' industrial instruments.





Your toughest drilling jobs are easy for Model "80" SKILDRILL, the lightest, most compact ½ in. drill on the market. Its extra power drives bits faster through steel, wood and compositions. It handles easier, even in tightest spots . . . gets work done far faster on war-work assembly lines.

Model "80" SKILDRILL weighs only 8 lbs., only 11½ in. long and 3¼ in. wide. Drills up to ½ inch in steel and 1¼ inches in hardwood. Also ¼ in. SKILDRILL, "The Mightiest Mite of the Drill Field," and 21 other models of Skilsaw Drills for every job that needs doing. Ask your distributor for a demonstration.



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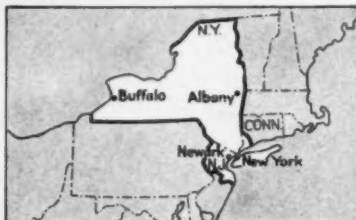
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PORTABLE ELECTRIC  
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MAKE AMERICA'S HANDS  
MORE PRODUCTIVE!

## The Regional Market Outlook

NEW YORK (Income Index—143.4; month ago—138.7; year ago—117.1) —Activity in major industrial centers outside this city is rising sharply, now that conversion dislocations have been largely overcome. At Elmira, Schenectady, Utica, N. Y., and Bridgeport, Conn., payroll gains over a year ago have already outstripped the nation's, and from now on employment in Buffalo and Syracuse is apt to rise at twice the sharp 1941 rate.



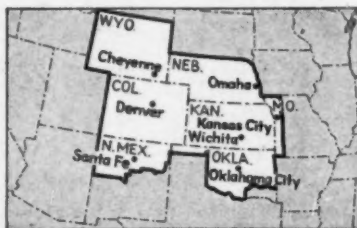
52,153 sq. mi. pop. 17,129,265

ATLANTA (Income Index—158.4; month ago—157.2; year ago—131.1) —The arms impetus continues to spread throughout this Reserve district, with latest awards for plants and camps going to Tennessee, Mississippi, and Florida.

As a result of military expansion, Miami and other resort areas are recovering rapidly from the poor winter tourist season, and summer sales will run far better than usual. Atlanta, hard-hit by priorities dislocations on trade and service lines, is responding to the construction of a giant war plant. New Orleans, where cotton and oil shipping is off, will be greatly stimulated by the Higgins shipyards (BW—May 16'42, p64).

Meanwhile, operations are rapidly rising in the many new plants concentrated in northern Alabama and Tennessee, and at coastal shipbuilding points (BW—Apr. 25'42, p54). Most regular district lines—textiles, lumber, steel—are stepping up activity as capacity expands.

KANSAS CITY (Income Index—140.3; month ago—139.3; year ago—113.0) —The prospect here is for all-around business expansion. The farm outlook is particularly good. Rains have stored up subsoil moisture in the eastern parts of this Reserve district; improved yields have more than made up for the 18% cut in winter wheat acreage, and the "freed" acreage has been planted to corn and other feeds, thus compounding the improvement in prospects (BW—



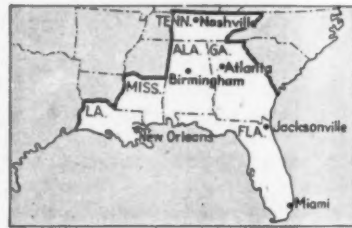
480,537 sq. mi. pop. 7,855,397

Similarly, in the concentrated northern New Jersey industrial area, curtailment in auto, textile, and other lines no longer is offsetting the continuing acceleration in Dover's ordnance, Kearny's shipbuilding, Paterson's engine, and Elizabeth's machinery manufacture.

But here in New York City, war work over the next six months will absorb only 10% of the city's 350,000 jobseekers. Ultimately, at peak operations, new aircraft and aluminum projects, expanded shipways, and enlarged ordnance and machinery facilities may require a total of 150,000 additional workers. However, apparel employment soon will drop off—by perhaps 50,000 or more—because of wool, rayon, and print cloth shortages.

In nearby Yonkers and other Westchester towns, carpet and auto activity, hard-hit by priorities, is beginning to pick up. But aircraft payrolls in Nassau and Suffolk Counties are growing, and a big new shipyard is projected.

Farm income is running 65% ahead of 1941 in Florida, Louisiana, and Mississippi, but gains in other states have been more moderate. Plantings of oats, tame hay, tobacco, soybeans, and especially peanuts, are to be increased this year. Although less corn will be sown, more sweet potatoes will be raised for feed. And in Florida's Lake Okechobee region an additional 100,000 acres may be sown to produce carbohydrates for synthetic rubber (BW—May 2'42, p69).



247,778 sq. mi. pop. 12,597,347

Apr. 25'42, p54). Furthermore, sharply higher livestock shipments and prices have lifted receipts 50% above 1941 in almost all sections of the region.

In Nebraska, AAA benefits have jumped \$10,000,000 above last year. And, the 16¢-per-bushel increase in the wheat loan rate, together with a 50% rise in the crop, should boost state receipts another \$30,000,000 above last year. Kansas, with no change probable in its harvest, will gain a like amount.

Industrially, things are humming, too. Establishment of arms plants at Omaha, Wahoo, and Grand Island has boosted Nebraska's total nonfarm employment 20% above a year ago. More spectacular, aircraft expansion at Wichita, Kan., is estimated to have raised population from 113,000 to 160,000 in two years. A city of 300,000 is envisioned by the end of 1943. Meanwhile, latest awards call for military construction at Lincoln, Neb., Salina, Kan., and Casper, Wyo.

# He'll never goose-step

- Here is a young Philadelphia school-boy—getting a practical lesson in "Freedom of the Press."

- He is putting words end to end, as they bubble up in his mind. He knows that when he has finished what he is writing, he will send it to the largest newspaper in his city. There it will be judged by whether it is interesting—not merely whether it helps the State. If it is interesting, he knows it will be published—over his own name.

- That happens every day in Philadelphia. It is the Heigh-De-Ho Department of The Evening Bulletin.



PHILADELPHIA youngsters are learning through their own department in the Evening Bulletin that what they and their young friends say and think is important.

The Bulletin gives youth a means of expression. That's why boys and girls of Philadelphia regard The Evening Bulletin as *their* newspaper, as well as their parents'.

Thousands of them send in stories, pictures and verses every year. And

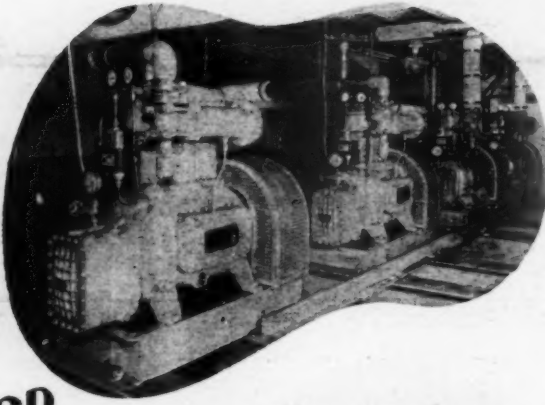
as the years go by, these boys and girls grow up with the knowledge of The Bulletin's humanness and accuracy.

They grow into the ranks of enthusiastic Bulletin readers—confident that whatever happens they are most likely to find it reported quickly and correctly in Philadelphia's favorite newspaper.

These sons and daughters don't show up in The Bulletin circulation figure (currently over 600,000). But

they have a lot to say about family purchases. They are just as aware as their parents of the things that look good to them in the advertisements. And there is always a much better chance of learning about such things in The Evening Bulletin. During last year, this one newspaper carried almost twice as much national display advertising (excluding classifications not acceptable to The Bulletin) as any other daily newspaper in Philadelphia.

**PHILADELPHIA—NEARLY EVERYBODY READS THE BULLETIN**



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immediately  
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among the merchandisers pointing out that national pushes on specific crops mean big turnover per store, hence how about cutting markups and letting bargain prices also help consumption? Also, since transportation or labor bottlenecks may at times be as responsible as anything for glutted supplies, AMA will urge every agency to boost consumption of a crop as close to home as possible.

• **Extends Beyond SMA Plan**—Although the government in the new plan goes farther into tying up with the merchandisers to push foods than ever before, neither side is new at the game. The Surplus Marketing Administration, now absorbed in AMA, has had long experience in food stamp handling and will continue this relief aspect without change (eligibles for food stamps have been declining in number but, with higher cost of living, relief clients are in greater need). And only a year ago SMA was trying out a Food of the Week idea for surpluses (BW—Mar. 1 '41, p. 34; Apr. 5 '41, p. 36) which was boxed off by growth of lend-lease needs.

Earlier, food chains and independents had taken over a surplus here and there (BW—Mar. 5 '38, p. 31), and they still do. In both cases the power to stimulate consumer interest was strongly demonstrated. AMA's new device will be the biggest yet, completely national.

• **A. & P. Lends Its Help**—Meanwhile the Great Atlantic & Pacific Tea Co.'s commission house affiliate, Atlantic Commission Co., has been working out a scheme of its own for better farmer-grocer relations. Atlantic Commission has sponsored meetings between agricultural extension service and county agent people and groups of growers.

Main idea was to sponsor cooperative action by growers in packing, grading and marketing, thereby enabling distributors to pay better prices for better and more dependable quality products. First fruits of the good will and educational work were heightened income and better products for Blount County (Ala.) tomato growers, and Humboldt County (Tenn.) strawberry growers.



Under this sign grocers will move surplus plus crops—without price restrictions



# PRODUCTION

## F.D.R. vs. Arnold?

It isn't the F.D.R. of today but of 1918. He then sponsored a patent amendment which now handicaps drive for new law.

In 1918 Franklin D. Roosevelt asked the Naval Affairs Committee of the Senate for a change in the patent laws to expedite war production. And, if Thurman Arnold loses his attempt in 1942 to win changes in the patent laws on the allegation that they impede war output, it may very possibly be on account of the amendment put through in 1918.

• **How the Plan Originated**—On the earlier occasion, Acting Secretary of the Navy Roosevelt wrote a letter complaining that the department was in an awkward position. "Manufacturers," he told the Naval Affairs Committee, "are exposed to expensive litigation, involving the possibilities of prohibitive injunction, payment of royalties, rendering of accounts, and payment of punitive damages, and they are reluctant to take contracts that may bring such severe consequences."

In short, manufacturers were afraid of the costs in case of infringement of somebody's patents in following specifications of the armed services; they wanted protection or else they felt they had to hike prices to cover contingencies. Congress passed an amendment to the patent laws which absolved the contractor from penalties, permitted the patent holder instead to sue the government in the Court of Claims.

• **Practical Workings**—This amendment still is on the books, and patent lawyers argue that its protection permits a war contractor to use any patent he really needs. (It doesn't afford protection if he infringes a patent when he has a good alternative.) There's one hitch, however. The Army and Navy have largely nullified the amendment in recent years by putting into their contracts clauses holding the manufacturer liable for any judgments against the government for infringement. So, the patent lawyers argue, the fault is with the way the government writes its contracts, not with the law.

So far this point hasn't come before the Senate Patents Committee where Creekmore Fath, committee counsel, is assembling evidence to bolster the demand that Congress whittle down the patent privilege (BW—Apr. 11 '42, p14). Yet manufacturer-patent holders who fear loss of valuable properties and patent lawyers opposed to change may



It doesn't take an engineer to know that noise means wear and tear. When you hear a noisy crane, you can be sure maintenance costs will run high and unnecessary friction definitely limits its service life.

Quiet operation can only come from careful construction—design that protects vital points against

needless wear. Heavy duty anti-friction roller bearings... smooth-running gears... flexible couplings for power transmission... tapered-tread wheels... oil-flushed load brakes... rotating axle bearings... these are features of Whiting cranes that assure quiet operation, long life, and low maintenance cost. Whiting cranes are the quietest cranes you ever heard.

Capacities from one to 400 tons. Also electric hoists from 1/2 to 7 1/2 tons. Whiting Corporation, 15661 Lathrop Ave., Harvey, Ill. Builders of quality cranes for over fifty years.



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DRIVE WHEELS

reduce Noise  
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### WHITING CRANES

...reduce load on bridge drive and keep crane squarely on the runway without binding.

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"How to Write a  
Travelling Crane Specification"



# WHITING

*Quiet-Running*

## OVERHEAD TRAVELING CRANES

be counted on to give the 1918 amendment all the publicity possible to backfire the charges coming before Chairman Homer T. Bone's committee.

• **"Know How" Argument**—The Anti-trust Division's comeback to this argument will be that even if the manufacturer is free to use a patented invention, he can't get into production without the "know how"—knowledge of detail and practical application that comes with experience in actual production. The counter is that know how is unpatentable, that patent law has nothing to do with it.

Patent lawyers also have an answer for the argument that the law shields monopolies and protects trusts trying to

dodge the Sherman law. A patent on an invention is simply a right to exclude others from making or using that invention. If the holder of a patent undertakes to make or sell goods covered by his patent, his actions come under general law, not patent law. Therefore, say the lawyers, there is no protection in a patent for an action outlawed by the Sherman Act. Enforce the antitrust laws, don't weaken the patent statutes, runs this argument.

• **Where Patent Leaves Off**—Unexpected support of this viewpoint came from the Supreme Court two weeks ago when it demolished the Masonite contracts fixing resale prices on its patented product, hardboard (BW—May 16 '42,



### UPSIDE DOWN MAP

To educate crippled children undergoing corrective treatment at the Shrine Hospital in San Francisco, a 17-color map of the Western Hemisphere, cut from 451 pieces of Armstrong's Linowall, has just been installed on a ceiling in the physical therapy department. Measuring 32 ft. by 12 ft., it represents one of the largest and most complex Linoset jobs ever installed.

p28). "The owner of a patent," declared Justice Douglas, "cannot extend his statutory grant by contract or agreement. A patent affords no immunity for a monopoly not fairly or plainly within the grant."

This decision is the latest in a long line of cases which have lopped off the extensive privileges that went with a patent at the beginning of this century. Between 1896 and 1917, the courts permitted patentees to attach elaborate restrictions to their products even after they had been sold. Manufacturers not only fixed resale prices on their products; they stipulated the supplies to be used, sometimes insisted on supplying all the equipment in a shop (the famous shoe machinery cases). The Supreme Court reversed itself in 1917, and began the clamping down process.

• **Where Public Suffers**—The patent bar insists that the law as it stands today provides no shelter for combinations in restraint of trade. It argues that a patentee gets a monopoly only on his particular invention; this is not against the public interest because, except for his ingenuity, the public would not have had the invention at all. In contrast, restraint of trade against the public welfare takes away something the public had all along.

Mr. Fath and the Bone committee are out to prove that the law encourages

## Needed: More Man-Hours



Where are we to find the unprecedented billions of man-hours that will be needed for the present war-production program this year and next?

One possibility is to search anew for lost motions and weed them out. Another is to substitute woman-hours.

Both possibilities exist in the practice of handling materials in units of 2 to 5 tons on skids or pallets by BATTERY INDUSTRIAL TRUCKS. They handle tons as easily as pounds were handled manually, and former

lost motions of loading and unloading are eliminated. And because they are clean, noiseless and simple to handle, BATTERY INDUSTRIAL TRUCKS can be operated by women in numerous kinds of work. Result: man-hours released for other work.

To Handling Supervisors in American War Industries: Have you received your copy of our Association's Material-Handling Handbook? Yours for the asking.

★ One of a series of advertisements showing how BATTERY INDUSTRIAL TRUCKS are speeding war production by handling materials efficiently.



### THE INDUSTRIAL TRUCK STATISTICAL ASSOCIATION

208 SO. LA SALLE ST.  
CHICAGO, ILLINOIS

MEMBERS—TRUCK MANUFACTURERS: AUTOMATIC, BAKER, CRESCENT, EASTON, ELWELL-PARKER, MERCURY AND YALE;  
BATTERIES: EDISON, EXIDE AND PHILCO; BATTERY CHARGING EQUIPMENT: ELECTRIC PRODUCTS AND HERTHEL.

suppression of discoveries and growth of illegal monopoly. By building up a record of actual cases, they hope to amass enough evidence to carry the bill for patent law revision jointly sponsored by Senators O'Mahoney, La Follette, and Bone. Main features of this proposal are (1) compulsory licensing, and (2) unrestricted licensing.

• **Often Considered**—The compulsory licensing provision would authorize the Commissioner of Patents to release inventions for public use at a reasonable compensation if the patentee failed to make use of them in three years. Congress has considered this plan 10 times in the past 30 years, most recently in 1938. Main object of the measure would be to prevent suppression of new discoveries. The big question of fact is how many significant discoveries have been suppressed.

If the Bone committee can cite enough cases it may carry this point in theory, but it will have to offer a yardstick for estimating reasonable compensation and a set of safeguards for small manufacturers with too little capital to get into production right away.

• **Fight Still Ahead**—The prohibition on restricted licenses would strike down all agreements limiting quantity of production, price, or geographical area of sale. The opposition argues that the antitrust laws will take care of the odious restrictions, while the others merely make it easier for a patentee to cash in on the privilege granted him.

If the Bone committee can cite enough horrible examples of how the patent law has actually slowed down war production, it will stand a good chance of getting its formula accepted. But with the 1918 amendment on the books, that job will be a tough one.

## Salvaging Tubes

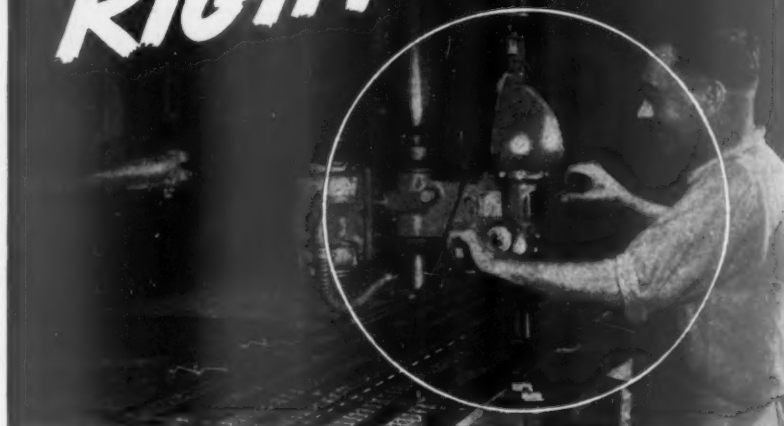
Institute's machinery for the collection and reclaiming of old toothpaste and shaving cream containers is now in operation.

Willis M. Rose is head man of the Tin Salvage Institute, the outfit that was set up under Washington auspices to reclaim all the tin, lead, and other metals from the used collapsible tubes which you have been turning in when taking on new supplies of toothpaste and shaving cream. He knows his collapsible tubes, for he is also president of Sun Tube Corp.

• **Ready for Business**—On Monday Mr. Rose got a pretty frantic long-distance call. A drug-chain executive wanted to know, "When will the institute go into operation?" The d.c.e. explained that he was in a jam:

"We've got tons and tons of old tubes

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**A**LERT production men in thousands of shops are solving the problem of making up special machines quickly and economically by using Delta drill press heads.

These drill press heads can be purchased separately—assembled in the combination that best meets your special needs—and used in many positions, vertical, horizontal or at any angle.

Such special machines speed up output, cut costs and release more versatile and costly machines for other work. The illustration above shows a Delta drill press head used in making a special radial type machine at the Lockheed Aircraft Corporation.

Other Delta low-cost high quality machines—cut-off machines, abrasive finishing machines, circular saws, shapers—also lend themselves to economical special machine set-ups. Every man concerned with increasing production and reducing costs—should get the full story of these flexible, adaptable machine tools.



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☐ "How to Increase Production"—showing many actual cost-cutting installations of Delta machines.

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☐ "Tooling Tips"—showing latest adaptations of Delta machines for special needs of industry.

# DELTA MILWAUKEE

World's largest manufacturers of low-cost, high quality drill presses • grinders • abrasive finishing machines • cut-off machines • circular saws • band saws • scroll saws • lathes • jointers • shapers



right now. We can't find warehouse space, they're piling 'em up on us every day. What'll we do?"

That was Mr. Rose's moment. "Just ship 'em to the Tin Salvage Institute, 411 Wilson Ave., Newark, N. J.," he said. "We're open for business—right now."

● **How System Works**—Ever since the original tube limitation order, which required merchants to hold turned in tubes until further notice (BW—Apr. 4'42,p8) the tubes have been piling up all over the country. Now, on the further order of the War Production Board, all drug stores are to deliver all old tubes to their wholesalers' truck drivers when they call with new merchandise.

When wholesalers have accumulated 100 lb. of tubes or more, they are to ship them by freight collect to the Tin Salvage Institute. Drug stores in localities not served by wholesalers' pickup deliveries are to hold tubes until they have accumulated at least 5 lb., then ship them by express collect to their wholesalers for reshipment. Wholesalers will be reimbursed by the Institute for express payments.

● **Unsolved Problems**—Methods for handling tubes collected by variety stores, grocers, charity organizations, scrap dealers, and others have not been worked out, principally because the dealers and the charity groups are holding out for cash on the line for their collections, while the druggists collect free. One

large variety chain, which reports a collection of more than 100 tons, suggests that—with or without compensation—instructions can't come too soon.

Starting from scratch last August, the Tin Salvage Institute has already built up capacity for reclaiming the metal from all the old tubes in the country.

● **Steps in Reclaiming**—First step in the process is the hand-sorting of tubes by metal content, pure tin tubes being segregated from lead and composite tubes. If tubes can be received in an unrolled condition, selection will be expedited. Caps have salvage value.

Next step in the process calls for squeezing a whole lot of tubes at a time in a hydraulic press, forcing out most of any left-over contents—which range all the way from dental cream to anchovy paste—and pressing the tubes into briquets for the melting furnace.

● **Pigs of Pure Metal**—Final step casts pure tin and pure lead into pigs for the government-owned Metals Reserve Co. Composite metal (mainly a mixture of lead, tin, antimony, and copper) is analyzed before casting, and if a little more tin or lead will convert it into an acceptable bearing metal, additions are made while the mix is still molten.

Since Tin Salvage acts simply as agent for Metals Reserve Co., all reclaimed metal becomes the property of the latter. Tube manufacturers will be allotted tin for new products pound for pound in proportion to the Institute's collections, no more.

## More Tungsten

New ore find in California and construction of refinery in Utah mark effort to boost home output to replace imports.

The United States is really digging for the tungsten (formerly largely imported from China) to make tungsten-steel cutting tools so necessary to industry. Typical of the activity are two current developments, one in California and the other in Utah.

● **Found in Old Silver Mines**—The California operation, heralded by officials of the U. S. Geological Survey and the California State Bureau of Mines as "one of the biggest bodies of tungsten ore yet discovered" in this country, has been cooperatively developed by these state and federal agencies. The tungsten-bearing sheelite was located in abandoned silver operations in Inyo County.

The discovery resulted from research in the area by the two cooperating mining bodies after a prospector, prowling around the ghost town of Panamint City on the rim of Death Valley, found a sheelite float. Working upstream, the float was traced to silver operations which had been abandoned some 50 years ago.

● **Revealed by Ultraviolet**—By use of the new ultraviolet technique which enables prospectors to detect the presence of nonferrous metals, it was found that sheelite was present not only in the thousands of tons of tailings discarded in the old silver operations but in the old quartz veins which had been worked for silver half a century ago. No attention was paid to sheelite in those days; so it had been discarded on the waste dumps.

Significance of the announcement that a chemical refinery to treat low-grade tungsten concentrate will be built at Salt Lake City is (1) that it is the second operation started during the emergency to use a chemical process rather than the conventional concentration-flotation method, and (2) it is the most notable recent encouragement of Utah's desire for further development of its mineral resources (BW—Mar. 15'41,p24).

● **Scope of Project**—The new plant will cost around \$350,000 and have a treating capacity of some 100 tons of concentrate daily. The only other operation of its kind, at Golconda, Nev., can handle about 250 tons a day.

U. S. Vanadium Corp., subsidiary of Union Carbide & Carbon Corp., will supervise construction of the Utah plant for the Defense Plant Corp. and then operate it for Metals Reserve Co., another federal agency.

Concentrates to feed the new opera-



## LACQUER FOR MILK

Chemists connected with the Dairy Bureau of the U. S. Department of Agriculture collected materials from far and wide in their search for a tin substitute for coating the milk cans, but the best bet appears to be a lacquer made largely of lactic acid (from milk) and vegetable oils. Both the

dark-colored, lacquer-lined cans and newly-plated tin milk cans (left) are now in daily test service hauling milk between the department's dairy farm in Beltsville, Md., and its laboratory in Washington, D. C., where other tests continue such as subjecting lacquered linings to the steam and alkaline solutions commonly used in sterilizing milk cans.

tion will come from the U. S. Vanadium tungsten development at Winnemucca, Nev., from the mine and mill of Bradley Mining Co. at Stibnite, Idaho, and, perhaps, from a new Utah tungsten operation set up by Charles H. Segerstrom, the California "tungsten king."

• **Bureau of Mines Explores**—The U. S. Bureau of Mines as well as U. S. Vanadium is exploring tungsten deposits in Utah and other intermountain areas.

U. S. Vanadium claims the chemical refining process permits recovery of a higher tungsten content from low-grade concentrates, that in the conventional concentration-flotation method considerable tungsten is lost in "middlings," the milled material between "tailings" and top-grade concentrates.

## Team Play on Ship

One company launches it, another outfits it, with result that green crews get chance to learn how the job is done.

Completion last week in Los Angeles of the S. S. Oliver Hazard Perry for the Maritime Commission represented something like a baseball "assist" in shipbuilding. The 10,500-ton Liberty freighter was built by the California Shipbuilding Corp. and outfitted by the Consolidated Steel Co., a competitor.

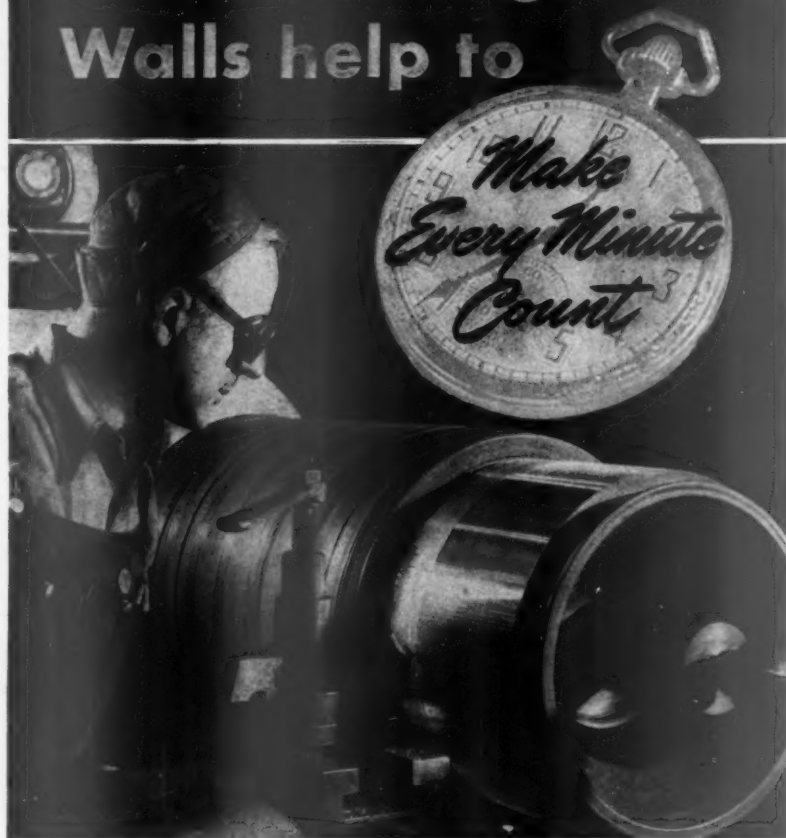
• **They Learned Fast**—When the Perry slid into the water on Feb. 18 after 156 days on the California Shipbuilding ways, it was turned over to Consolidated's outfitting crew, many of whom were inexperienced in outfitting a ship of that type, so that they could learn the job. Last week, Consolidated's men finished the outfitting after 77 days, a feat that was widely acclaimed.

At least two other California Shipbuilding vessels are in process of being outfitted by Consolidated to provide experience for its finishing crews, although California's outfitting docks, employing 6,500 men working on a 24-hr. schedule, are ample to handle the outfitting of the ships that come off the company's own ways.

• **California Shipbuilding's 11th**—The Perry was the eleventh EC-2 (Emergency Cargo) Liberty freighter built for the Maritime Commission by California Shipbuilding, whose own crews are outfitting cargo vessels in something under 77 days.

Concurrently with completion of the Perry, Consolidated's new yards at Wilmington, Calif., launched their first ship, the 9,000-ton cargo vessel Mormachawk, one of the C-1 type of combined freight and passenger ships. The "know how" acquired by work on the Perry will simplify the outfitting of this boat by Consolidated's crews.

## WHITE Ceilings and Walls help to



**Good light and plenty of it is—as you well know—mighty important in assuring swift, steady, high-quality output. Chances are that you've got a modern, efficient lighting system in your plant right now.**

**BUT**—as your own maintenance man can tell you—even the finest lighting system alone is not enough. *Paint is part of your lighting system!* If the ceilings and walls of your plant are dingy, dirty, or yellowed with age, you're wasting up to 60% of the current you're burning—and losing up to 10% of the production your present equipment could be turning out!

A strong statement? Ask your maintenance man. Ask your production man. Pick up your phone right this minute and call any lighting expert

of your acquaintance. He'll tell you that dark, dingy ceilings and walls are a drag on production, that they hamper inspection, multiply mistakes, increase lost time due to accidents and worker fatigue.

Paint—right now—is a vital production tool you can't afford to overlook. You may not be able to get another man... another machine... another square inch of floor space. But you can paint your ceilings and walls **WHITE**—without interrupting even "round-the-clock" schedules—and get an extra six minutes out of every hour your plant is operating now!

There is a trained Barreled Sunlight Representative near you. Backed by our 40-year experience in making white paint for industry, he is equipped to help you work out an efficient, economical plant painting program. For details, write U. S. Guffa Partha Paint Co., 12-E Dudley St., Providence, R. I.



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## General All-Bounds eliminate delays before they reach your plant

Here's the way manufacturers of many products are keeping their shipping in step with production. The use of General All-Bounds eliminates lost motion. They arrive two-thirds assembled, even an inexperienced man can complete the assembly easily and quickly. No nails are used. Sides and ends are securely joined by use of a simple tool. Securely sealed by Rock Fasteners, this weight-saving container has the strength of steel on all six faces.

Used for the faster packing of products weighing up to 500 lbs. reduce tare weight as much as 50%. Shipped to you as one-piece shocks they are stored flat . . . take a fraction of the space necessary for made-up containers.

General All-Bounds, Wire-bounds, crates and special containers are available from 13 strategically located plants and offices blanketing industrial America.

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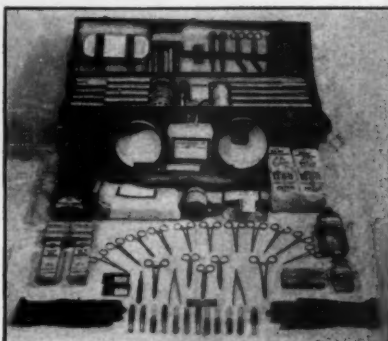
Address .....

City ..... State .....

# NEW PRODUCTS

## Emergency Medical Kit

The new "Emergency Medical Supplies Kit" should not be confused with first aid kits which have been available for many years. Its purpose is to make available on instant notice for industrial physicians and nurses not only first aid supplies but also the essential equipment for emergency operations at the scene of any disaster. As developed by Emergency Kit Co., 135 W. 22nd St., New York, the outfit comprises 44 groups of items, including sterile oper-



ating instruments, sutures, bandages, tourniquets, splints, rubber gloves, basins, flashlights, opiates and other medications, all packed in a stout carrying case 32x10x9 in. There are enough supplies in the kit to cope with several crushing injuries, lacerations, fractures, and burns.

## Outlet Detector

Changes in the layout of almost any building are so frequent these days that few electricians can hope to know the positions of all the metal outlet boxes, steel conduits, and armored cables hidden in the walls and floors. In order to locate them expeditiously for wiring changes and new connections, Liberty Electric Co., 10314 Superior Ave., Cleveland, is bringing out the "Outlet Detector."

It is a wand-like device about 12 in. long and a little over 1 in. diameter, with a metal electrode on its tip and a cord for connecting it into any 110-v., a.c. outlet. When the wand is waved in front of a "lost" box or conduit (whether under plaster, wood, linoleum, thin tile, or concrete), high-frequency violet sparks reveal its location and even its exact outline.

## Electrified Hand Truck

When a load goes down a factory aisle on an Automatic Transporter Lift Truck, the operator appears to be pulling it. Actually he is just guiding and controlling it, because it is driven

through the front wheel by a battery-powered motor. It is built in several models, with capacities up to 6,000 lb.,

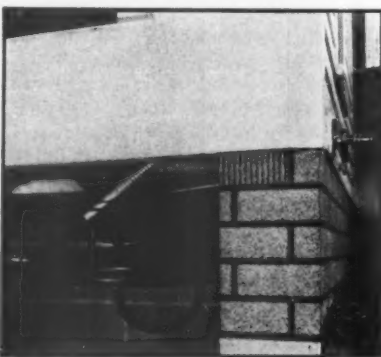


by Automatic Transportation Co., 115 W. 87th St., Chicago.

All controls, except a foot pedal for raising and lowering the hydraulic lift, are in the handle. Pull it down to go forward; push it back to stop or go back; move it left or right to steer. There is plenty of power to take a truck load over humps in the floor and up inclines.

## Automatic Hose Reel

Present needs for conserving rubber point up the timeliness of the Rollaway Hose Reel, new product of Zierden Machine & Mfg. Co., 3008 Plankinton Bldg., Milwaukee. For home use it is installed on the basement ceiling, away from direct sunlight which is one of rubber's worst enemies. For industrial use it can hang on some convenient column or other support, preferably up off



the floor and away from rubber-destroying oil, grease, and grit.

Since the hose is at all times connected with the water supply, all you do to put it in service is unlock a special theft-proof fitting, pull it out to the length desired, and turn the tap. To replace the hose, push it back in, and the reel will recoil it automatically. Reels come in two standard sizes for holding 100 or 200 ft. of garden hose, and in special sizes for various lengths and diameters of industrial hose.



## TRANSPORTATION

### Burdened Transit

Local streetcar and bus systems, already overworked, face bigger load as more and more automobiles are laid up.

Ever since Pearl Harbor the United States has been heading toward a crisis in local passenger transportation. Lack of rubber for tires has pointed straight to a drastic reduction in the use of private automobiles, but no definite plans have been adopted to meet the situation that will arise when motorists have to stop driving their cars.

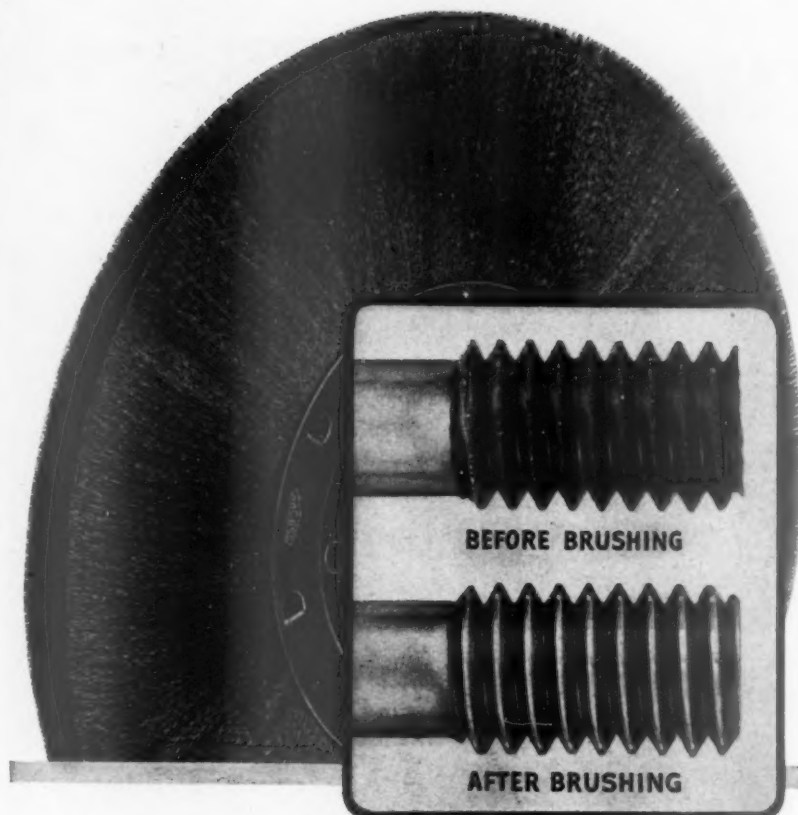
• **Trolleys and Buses Jammed**—Many auto users who live in territory served by public transportation have assumed that they could shift at any time to the use of buses or street cars. That would probably have been possible a few months ago but not today. Riding has increased so rapidly on bus and trolley lines that there is now virtually no spare capacity left to absorb additional loads.

Under normal conditions, the street car, urban bus, and rapid transit lines in the United States carry about 40,000,000 passengers every working day. During the first four months of this year the average was nearly 48,000,000 passengers a day, an increase of about 20%. In the meantime the number of available vehicles has increased only about 10%.

• **Out of Retirement**—Hundreds of street cars and buses, once headed for retirement, have been taken out of storage, overhauled and put back on the road in Boston, Newark, Philadelphia, Baltimore, Washington, Detroit, Cleveland, Cincinnati, Milwaukee, Kansas City, Denver, Dallas, Salt Lake City, Portland, San Diego, and other cities. Asphalt is being dug out of the grooves of abandoned street railway track in some places so that cars can run again. New rail is being laid in other places to provide better service to important defense industries.

Director Joseph B. Eastman of the Office of Defense Transportation has ruled that all existing street railway lines must remain in operation for the duration, so that whatever buses are available can be used to provide increased service. New York City, which already had purchased buses to replace the Third Ave. streetcar line, was told by ODT that it would have to stick by the trolley (BW—Apr. 4 '42, p8).

• **More Equipment**—ODT has also recommended the construction of 12,000 new motor buses, 800 street cars, and



### *Victories* hang by these threads —clean them faster

• Speed the cleaning of these threads! . . . the threads on bolts and studs and shafts and axles and gears. They're the threads that hold a war machine together . . . the threads that victories hang by!

Normally such threads have tiny burrs and ragged corners. You can see them in the magnified view at the top. Often these particles of metal slow up assembly operations. More than that, there is always the danger that they will break off and ultimately score or damage vital moving parts.

That's why today the great majority of threaded parts for war work are being cleaned. And to clean threads thoroughly and efficiently more and more companies are turning to Osborn power-driven brushes to speed up this important operation.

No matter what the stock or depth of cut, there's an Osborn brush for every thread-cleaning job. There are, in fact, Osborn brushes for speeding up every industry's cleaning, polishing, buffing and finishing operations.

An O.B.A. (Osborn Brushing Analysis) conducted in your plant by trained Osborn representatives may uncover vastly important ways in which Osborn brushes can cut time and costs and boost your production of urgently needed materials. Write today to The Osborn Manufacturing Company, 5401 Hamilton Avenue, Cleveland, Ohio.



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600 trolley buses during the present year—more than double the number built in an ordinary year. If all these vehicles are built, and that depends on the amount of materials that can be made available, they will provide an increase of about 18% in carrying capacity for the transit industry as a whole in the United States. That will not be enough to take care of the inevitable shift of riding from private autos to transit vehicles unless arrangements are made to carry the additional riders at hours different from today's peaks.

Estimates differ somewhat concerning the volume of riding that will shift from private autos to public carriers and the speed with which the change will take place. When tires were the only problem, it was easier to make a forecast. Since tires ordinarily wear out at a rate of about 3 1/2% each month, the life of an average tire is 28 to 29 months.

• **Retired for Want of Tires**—That means that today's newest tires would normally be worn out by the fall of 1944. But all tires are not new; some are already on their last mile. The only safe assumption is that the 15,000,000 private automobiles in urban and suburban areas will be laid up for lack of tires at a fairly uniform rate over the next 29 months, or about half a million per month.

If the users of these autos should all shift to transit vehicles it would mean that each month from now until the fall of 1944 would see the average daily demand for rides boosted by about 2,000,000, or 5%. That would exhaust the additional capacity of all this year's new transit vehicles in a little more than three months. To make matters worse, the rationing of gasoline will accelerate the speed at which private automobiles are taken out of use.

• **Stagger Helps**—All this adds up to the conclusion that something more must be done than simply dump the private automobile load upon the common carriers. The most promising measure is staggering the hours of factories, offices and stores so that everyone doesn't want to travel at the same time. Done effectively, this would permit the transit operating companies to carry a tremendously greater number of passengers with their present equipment.

As far back as a year ago, experienced transportation men were urging the adoption of staggered hours as industrial employment increased by leaps and bounds. Their arguments fell on deaf ears. Washington was the only city in the country to adopt the plan for any large part of its working population.

• **The Washington Plan**—In March, 1941, President Roosevelt shifted the hours of some 75,000 government workers. Most of them had been going to work at 8.30 and 9 o'clock. Hours were altered so that different groups reported at 15-minute intervals from 7.30 to 9.30,

with closing times varied to correspond. The result was that the maximum number starting or leaving work at any one time dropped from more than 80,000 to about 40,000.

In March of this year, Pontiac, Mich., established a system of staggered hours (BW-Mar.28'42,p33) as part of a five-point plan with the following objectives: (1) discouragement of unnecessary travel of all kinds; (2) encouragement of walking to work or school where distances are short enough to permit it; (3) encouragement of the use of street cars and buses wherever possible instead of private automobiles; (4) formation of workers' clubs for pooling the use of private automobiles to make trips where public transportation is not available, and (5) staggering the hours for industrial plants, offices and schools to spread the riding peak over longer periods.

• **How It Has Worked**—Depending on how you look at it, the Pontiac plan is either a howling success or a great failure. It is a success so far as mass transportation is concerned, because peak loads have been sharply cut, but the general automobile-riding public has not, as yet, been converted to the idea of sharing rides with neighbors. The load factor of the private automobile has been increased only from 1.3 to between 1.8 and 1.9 persons, as compared with a goal of 3.5. The Pontiac Police Department, however, reports a 10% decrease in the average flow of vehicular traffic on Saginaw Street, and a marked decline in the number of traffic accidents.

In addition to Washington and Pontiac a number of other cities, including New York, Los Angeles, Dallas, and Seattle, have adopted staggered hours, but only on a limited scale. Opposition to the idea has been widespread. In one city the teachers object to a change in school hours. In another, difficulty has been experienced in selling the idea to factory managements. A third approves the plan in principle, but "is not prepared to put it into effect."

• **Eastman Urges Action**—To get quicker action, ODT Director Eastman has sent a message to the governors of all states and the mayors of all cities over 10,000 population calling on them to organize a war transportation program similar to the Pontiac plan. The "systematic staggering of business, school, and working hours" is listed as the first step to insure the continued and efficient operation of local transportation facilities needed to get war workers to their jobs. Since President Roosevelt's executive order of May 5 made Eastman a virtual "czar" of all local transportation, it seems likely that his call for staggered hours will be heeded. Whether his plea for pooling private autos will produce results better than those achieved at Pontiac remains to be seen.

# ★ AMERICA ★ ★ WORKING ★



*A very busy Miss she is—in the plant of Skilsaw, Inc., where R & M Air Circulators help speed war work by keeping employees cool.*

## • • R & M helping • •

**KEEP 'em cool and they'll "Keep 'em Rolling!"** That's the wartime expression of a peacetime rule at Skilsaw, Inc., where output of war-production tools is soaring. During hot weather, workers are "energy-conditioned" by R & M Air Circulators. Powered by dependable R & M motors—and delivering 7500 to 9500 cubic feet of breeze per minute—they're bolstering morale and efficiency in countless industries.

★ Other R & M products are helping, too . . . ingenious R & M Moyno Pumps that pump everything from high-pressure coolants to ceramic "slip"; motors that are noted for their never-say-die performance; hoists and cranes that lift and transport bulky armor plate and airplane engines with equal ease; motor drives that increase production of both old and new machine tools.

★ Busy on war jobs? Indeed we are! But our fan distributors are always ready to help you find the answer to your ventilating problems. Write us. The address, since 1878, is Robbins & Myers, Inc., Springfield, Ohio.



**MOTORS ★ HOISTS ★ CRANES ★ FANS ★ MOYNO PUMPS**



# clues:

Turning the "Searchlight" on Opportunities

"clues" appears in 1st and 3rd issues of the month only. Copy for scheduled issue required 5 days in advance. RATES: 50 cents per word or \$3.50 per line (or fraction) per insertion, payable in advance. Minimum charge \$5.00. Discount 10% on orders for insertion in four consecutive issues. Publication box number addresses count as 1 word; replies forwarded without additional charge. Address box number replies c/o Business Week, 330 W. 42nd St., New York, N. Y.



## PEOPLE

### position vacant

• **EXCEPTIONAL OPPORTUNITY** for an exceptional man. An important textile organization has the need of a competent man capable of taking complete charge of its Methods Department. Complete reorganization of the department will entail the following responsibilities: to develop factory work-incentive systems, industrial relations, to install aptitude tests, to organize and instruct time study work. Headquarters will be in New York City; field work will be done in various plants outside the state. For the qualified man this is a unique opportunity. State all particulars of background, education, experience. Replies will be kept confidential. Box 297.

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• **PRACTICING ATTORNEY AND C.P.A.**, American Institute, in small western city, anxious to make industrial or professional connection with greater opportunities for law-accounting combination. Experienced in credits and financing. Age 46. Married. Box 295.

• **TREASURER—COMPTROLLER AVAILABLE.** Thoroughly trained financial executive, capable of directing all phases of control. University trained; experienced lecturer; age 45; married. Now employed but prefers to join a Defense Industry. Box 296.

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• **THOROUGHLY ORGANIZED SERVICE** of 32 years' standing and reputation, carries on preliminary negotiations for positions in the higher salary bracket. Procedure is based on an aggressive campaign individualized to each client's personal requirements. Moderate retaining fee protected by refund provisions. Identity covered and present position protected. Send only name and address for details. R. W. Bixby, Inc., 282 Delward Bldg., Buffalo, N. Y.

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### wood and metal patterns

• **OLDEST ESTABLISHED** pattern and machine works on Long Island can take on additional wood and metal pattern work. Eppenbach, Inc., 4510 Vernon Blvd., Long Island City, N. Y.

### production increase

• **NATIONALLY-KNOWN** firm of consultants with successful record offers method for increasing production adaptable and effective in most plants without adding equipment. Details on request. No obligation. Methods Engineering Council, Wood and Franklin Streets, Station 21, Pittsburgh, Penn.

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• **PHOTOGRAPHS AND PERFORMANCE DATA** from the field for advertising purposes, catalogs, special displays, posters, exhibits, etc. Operates through 2700 photographers to the U. S., Canada, and Central and South America. Posed photographs, illustrations in any medium, retouching, designs, lettering and other finished art work can be ordered at the same time as field photographic work. Drafting, technical illustrations, patent drawings, charts, graphs, publication and book illustrations, color separations, photographic and photostatic copy and enlargement work. Field Photo and Illustration Service, McGraw-Hill Publishing Co., Inc., 330 W. 42 St., New York, N. Y.

NEXT ISSUE for "clues" ads June 6  
Copy required June 2

# THE MARKETS

Dividend news continues to be a dominant factor in the market, with only war and tax developments overriding it. Prices of the so-called blue chips, which represent better than anything else the capitalized value of expected dividends, have been bouncing around uneasily since the beginning of the year, losing ground most of the time. With heavily increased taxes a certainty and rising expenses a probability, the market sees little hope for maintaining last year's dividend rates, and it is discounting prices accordingly.

• **Mother Bell Stands Pat**—The decision of American Telephone & Telegraph directors to stick by the \$9 rate is both an exception to the general trend and an illustration of how important dividends are in determining price. For 20 years A. T. & T. has kept up the traditional rate, and last Wednesday it announced the regular quarterly payment of \$2.25, even though the current Treasury tax proposal might cut earnings as low as \$6 a share.

During the depression (1932-1935) the company paid out \$141,000,000 more in dividends than it cleared in earnings, and in 1938 it went into surplus for another \$16,000,000.

• **There's Fat on the Bones**—If earnings this year shrink to \$6 a share, A. T. & T. will have to hit surplus for about \$56,000,000, which will be a bigger bite than it has ever taken before. The surplus account can stand the strain, however. A. T. & T. alone has \$198,000,000 in its profit and loss surplus. The whole Bell System has \$314,000,000.

In spite of the company's demonstrated tenacity toward dividends, investors have been worried about A. T. & T. since the beginning of the year (BW -Apr. 18'42, p. 76), and their nervousness

naturally has been reflected in the stock's price. Year's high so far is 134½, low 101½. On Tuesday, the day before the dividend meeting, the market opened at 114½, and then dropped to 111½ when New England Telephone & Telegraph, an A. T. & T. subsidiary, announced that its quarterly dividend would be cut from \$1.75 to \$1.50. As soon as the \$2.25 payment on A. T. & T. was announced, the price of the stock jumped two points.

• **Du Pont Cuts**—The same sensitivity to discouraging dividend news shows up in the other blue chips. Last Monday the du Pont company announced that its June dividend would be cut from \$1.25 to \$1. At that time du Pont was selling for 107½, with 144 for the year's high and 103 the low. By closing time Tuesday it was back to 103.

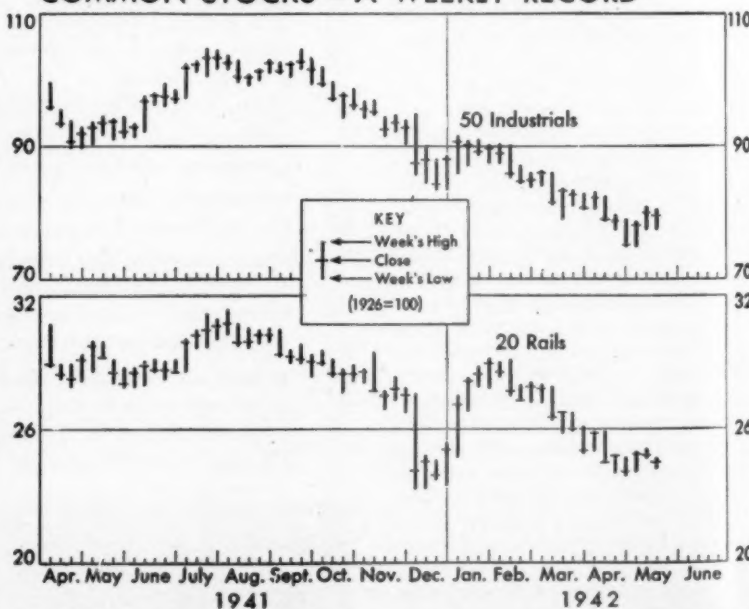
Similar volatility has been typical of other high-priced shares. Norfolk & Western, selling the middle of this week around 149, is off 43 points from its high for the year, and is only six points above its low. Allied Chemical & Dye, at 124, is 25 points below the 1942 high, 6 above the low.

## Security Price Averages

|                 | This Week | Week Ago | Month Ago | Year Ago |
|-----------------|-----------|----------|-----------|----------|
| <b>Stocks</b>   |           |          |           |          |
| Industrial ...  | 79.6      | 79.9     | 78.8      | 93.9     |
| Railroad ....   | 24.5      | 24.8     | 24.8      | 28.6     |
| Utility .....   | 29.8      | 29.7     | 28.4      | 44.4     |
| <b>Bonds</b>    |           |          |           |          |
| Industrial ...  | 107.2     | 107.5    | 107.8     | 102.3    |
| Railroad ....   | 87.3      | 87.7     | 88.2      | 88.9     |
| Utility .....   | 102.3     | 102.0    | 102.2     | 106.2    |
| U. S. Govt. ... | 110.5     | 110.3    | 110.5     | 110.6    |

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

## COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

© BUSINESS WEEK

# FINANCE

## Signs of Life

Mexican subsidiary of Southern Pacific, after years of sponging off its parent, perks up and might get out of red.

In San Francisco recently, executives of the Southern Pacific Co., with restrained but nevertheless genuine surprise and pleasure, checked progress reports of their somewhat neglected stepchild, Southern Pacific Railroad Co. of Mexico for the first quarter of 1942. By tradition a poor and unwanted relation of the S. P., the Mexican property had total revenues of \$1,843,000 for the first three months this year, or 18% more than in the same period of 1941.

**A Claim to Fame**—To the few who have studied the phenomenon, the comeback is something of a sensation. The line is a wholly-owned subsidiary of Southern Pacific Co. Including the American section, it forms the longest north and south railroad in the world stretching from Portland, Oregon, to Guadalajara, Mexico. Almost half of this 2,750-mile road lies below the Rio Grande. Starting at Nogales, Ariz., it crosses the mountains of Sonora and reaches the Gulf of California at Guaymas, a fisherman's paradise and site of the swanky Hotel Playa del Cortes resort. From there the line traverses the maritime states of Sinaloa and Nayarit, finally threading the barrancas of the Sierra Madre to Guadalajara in Jalisco.

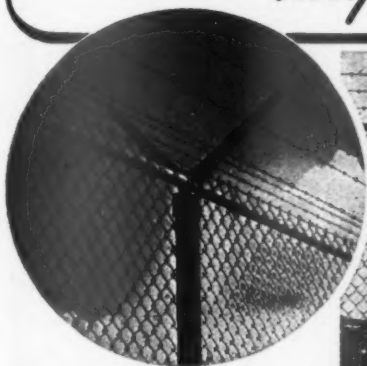
As a source of pleasure to thousands of tourists the Mexican line has been a great success. Conditions for the past two decades in Mexico have been more or less stable politically, although gray hairs of certain senior S. P. executives date from the days when Pancho Villa and his durados complicated the running of a railroad.

**No More Handouts**—The subsidiary, nevertheless, has lost money for years, forcing the parent company to make substantial cash advances from time to time. Late in 1939 the management decided to do something about this, and, as a prelude, sent a group of directors on the trip from Nogales to Guadalajara. Afterward, the directors called the management of the Mexican line on the carpet. Southern Pacific Co. stopped advancing funds in January of 1940.

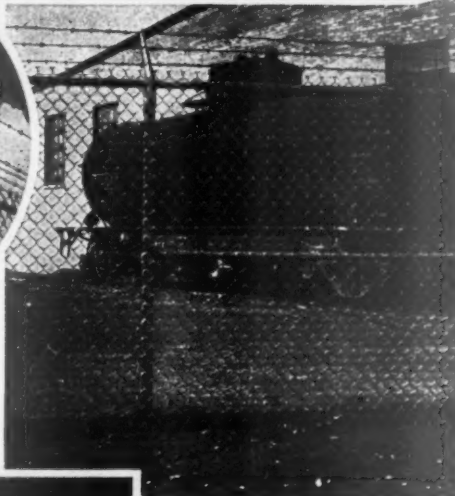
Christmas of 1940 found travel bureaus still featuring personally-conducted tours of Mexico as in former years, thus broadcasting that the railroad had made the grade. In the interim, through increased efficiency, as well as the cooperation extended the

## DOING A TOUGH JOB

*—every minute,  
day and night!*

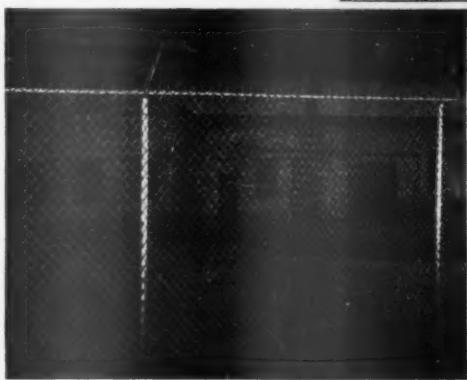


Cyclone is tough fence. It's doing a swell job of guarding the plants that are making materials vital to America's war effort. It never relaxes its vigilance for a moment. The barbed wire top on Cyclone Fence will discourage anyone who might wish to climb over the top.



Snoopers, saboteurs and spies have far less chance to do harm when the plant is inside this tough barrier. And as extra precaution it is a good idea to guard vital spots inside the plant with special enclosures.

Cyclone Fence helps your watchmen. For it makes all who enter or leave the plant pass through gates, where they can be checked for credentials.



**C**YCLONE Fence has been the choice for protection of many new war production plants. There is good reason for this. Plant owners know that Cyclone has always made good, durable property protection fence. Every bit of it is made tough to resist weathering and tampering. And it can be erected by our factory-trained crews if you wish—reliable men who are on our payroll. They are men you can trust on your property.

Get the facts about Cyclone. There's no obligation involved in getting a recommendation and a free estimate. And, subject to priority restrictions, we will do all we can to build your fence as quickly as possible.

### CYCLONE FENCE DIVISION

(AMERICAN STEEL & WIRE COMPANY)

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UNITED STATES STEEL

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Send for our free book that tells all about fence. Crammed full of facts, specifications and illustrations. Shows 14 types—for home, school, playground, and business. Whether you need a few feet of fence or 10 miles of it, you need this book. Buy no fence until you see what Cyclone has to offer.

**CYCLONE FENCE**  
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Please mail me, without obligation, a copy of "Your Fence—How to Choose It—How to Use It." I am interested in fencing: ☐ Industrial; ☐ Estate; ☐ Playground; ☐ Residence; ☐ School. Approximately \_\_\_\_\_ feet.

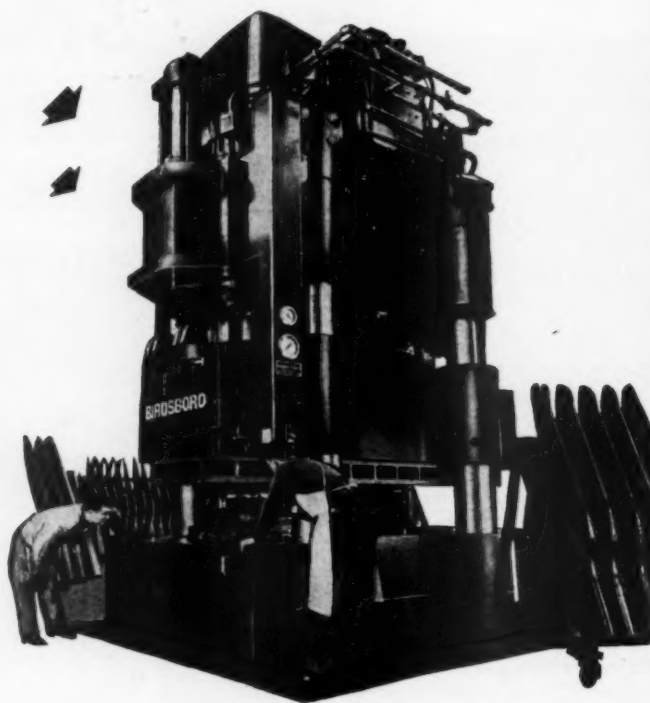
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# GIANT WORKING -- TO WIN A WAR!

This 2,000-ton Birdsboro Hydraulic Press was specifically designed for the manufacture of hollow steel propellers. It is one of many Birdsboro Hydraulic Presses now producing vital products for America's "all out for Victory" program.



**BIRDSBORO STEEL FOUNDRY AND MACHINE COMPANY**  
Plants at Birdsboro and Reading, Pa.

## BIRDSBORO

*Hydraulic Presses*

BUILDERS OF • Hydraulic Presses • Mill Equipment • Rolls • Special Machinery • Crushing Machinery

company by Mexican workers and government alike, expenses were trimmed by 4% notwithstanding heavier traffic. Total operating revenue increased 4% because of greater freight shipments and an upward revision in rates granted by the Mexican authorities.

• **Less Red Ink**—When accounts were closed at the end of 1940, the net deficit of the subsidiary was about \$598,000 compared with a 1939 red figure of about \$839,000 at varying exchange rates, and a loss of \$1,416,000 in 1938. The net deficit in 1941 was cut to around \$239,200. Improvement in 1941 over the preceding year was helped by better exchange for the peso. In the first two months of 1942 the rate averaged 4.86 pesos to the dollar.

J. A. Small is president of Southern Pacific Railroad Co. of Mexico with headquarters in Guadalajara. He has been with the line since March of 1909 and is therefore a veteran of the Francisco Madero revolution, the Pancho Villa uprising, the de la Huerta tenure, the Zapata era, and other political upheavals.

Current accounts of the line are being met promptly, although large accumulated debt to the parent Southern Pacific Co. still remains unpaid. Despite the success attending recent operations, the possibilities of substantial payments on its accounts are remote. Demands of labor continue "excessive" and remain a problem. In addition to the amortization charges necessitated by the agreement with the Mexican government, the line is faced with heavy maintenance costs as well as investments in new roadbed and rolling stock.

• **Hopefully**—Meantime, the management of Southern Pacific Co. has its fingers crossed, to see what happens. For the time being the Mexican subsidiary has ceased to be a liability. With closer rapprochement between Mexico and the United States, and with a continuation of operating economy and expanding revenue, it may eventually, they figure, become an asset.

*¿Quien sabe?*

### HIGHER CURB COMMISSIONS?

Following the lead of the Big Board, the New York Curb Exchange hopes to bolster its members' income by upping commission rates. The Curb membership is now voting on a constitutional amendment scaling up nonmember commissions. Governors of the Curb have also drawn up a plan for "special offerings" (BW-Apr. 11 '42, p80) which permits payment of special premiums to brokers finding customers for large blocks of inactive stock.

The Curb estimates that the new commission rates would have raised non-member commission revenue by about 20% if they had been in effect during the last half of 1941.



## COMMODITIES

### Copper Jackpot

Companies with inventory frozen under conservation or limitation orders are told to give up 300,000 tons.

Fabricators of copper and brass products the last few days have been getting letters from the War Production Board telling them they'd have to cough up inventory. The WPB says it has smoked out 300,000 tons of copper and brass that haven't been working and, after several earlier false alarms, the metal trade is convinced that the Washington authorities this time are not guessing.

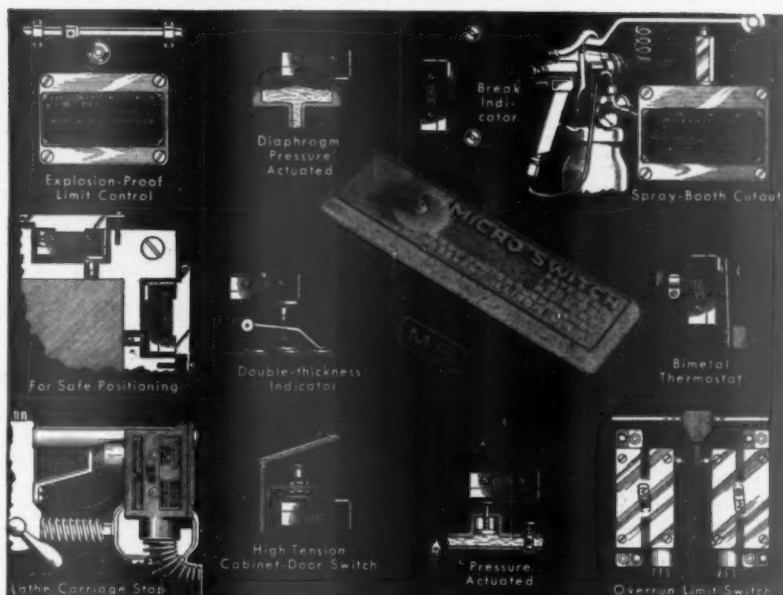
• **Results of Limitation**—This move marks one of the most important steps taken in months to marshal new supplies of critical raw materials, according to competent observers. It signals the twofold effect of conservation and limitation: Production of nonessential goods is cut so that input of scarce materials is reduced or is shut off entirely, and inventory on hand is frozen so that it may be forced back on the market where makers of war goods can get it.

If results of this inventory pullback were likely to be of a token character, the metal trade would not be so much impressed. In this case, however, the quantity of metal (255,000 tons of copper and 45,000 tons of zinc according to WPB's Division of Industry Operations) is definitely important.

• **24 Months' Output**—According to figures published in the trade press, the United States currently is turning out about 90,000 tons of refined copper monthly. Thus recovery of 255,000 tons from inventories would amount to well over 24 months' domestic production.

Whether the current drive to recover frozen inventories is to be described as a crackdown or not, it is thoroughly businesslike. The Division of Industry Operations is now sending letters to 20,000 fabricators of copper and brass products. Later, 80,000 others are to receive similar letters. Each is told to fill out an accompanying set of forms covering the precise nature of the copper or copper-base alloys in inventory and indicate willingness to sell to the government. Actual buying agency will be the Copper Recovery Corp., a new subsidiary of the Metals Reserve Co. The recovery company is staffed by a set of men drawn directly from the copper trade; its funds will be provided by Metals Reserve. Copper Recovery will finish its job, then dissolve.

Prices to be paid for products pur-



## How a Rayon Thread Gained Self-Control

The even winding of rayon thread is an absolute "must" in the production of rayon fabrics. Uniform tension assures this even winding on the spool and saves a lot of trouble later. The failure of other methods of keeping tension uniform suggested the answer: employ the variations of tension in the thread itself to do the controlling. That is exactly what was accomplished.

Three small, precise, sensitive Micro Switches have given rayon thread self-control. Now, too much tension decreases the speed of a specially designed motor. Too little tension speeds it up. A break in the thread stops the motor.

### Same-Point Operation

This precise action of Micro Switches combined with extreme sensitivity where required has solved many other difficult production or product design problems. In the majority of applications, the ability of Micro Switches to operate at precisely the same point 300 times a minute or more, for millions of operations, is their most important characteristic.

It was inevitable that the small size and the rugged, dependable, and precise operation of Micro Switches should be called to active duty for the duration. It is equally inevitable that new problems will call for equally unusual application suggestions from Micro Switch engineers, in

addition to further developments in the switch itself.

### What of the Future?

In your effort to meet the ever-growing challenge of today perhaps Micro Switch can help. And in your plans to meet the already acknowledged challenges of peace it is a foregone conclusion from past experience that Micro Switch can definitely point the way to smaller size, greater accuracy, or improved dependability of products now on drafting boards for production after this emergency.

We are alert to help your engineers in their exploration of new possibilities. The two handbook-catalogs will give your engineers information on methods of application. Please tell us how many copies of each your engineering department can use.



Catalog No. 60 contains complete information about the characteristics, dimensions, prices, and uses of all stock Micro Switches, with additional information on special switches.



Catalog No. 70 contains similar information for aircraft and aircraft accessory engineers, and others whose requirements are similar to those of the aircraft industry.

Micro Switch is a trade name indicating manufacture by Micro Switch Corporation

# MICRO SWITCH

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chased are described as anywhere from "good" to "fancy" by close followers of the market and are thus designed to prevent antagonism on the part of sellers who have feared confiscatory dealings for frozen inventories. The range, WPB says, will be from 15¢ a lb. for certain types of drawn copper wire to 30¢ for copper in certain other forms. A complete price schedule between these two limits has been devised.

● **Buyer to Meet Seller**—The hope is expressed that much of the inventory recovered can be transferred directly from the present owner to a war contractor who needs exactly the same semi-fabricated or fabricated piece. To facilitate this, manufacturers working on war orders are asked to give Copper Recovery Corp. (155 E. 45th St., New York City) a list of specific items they are experiencing difficulty in getting. These lists will be matched with sellers' inventory, and an effort will be made to bring buyer and seller together without necessity for the transaction clearing through Copper Recovery as middleman.

Everyone realizes, however, that much of the recovered inventories will be in ash trays and doorknobs and whatnot that must be reprocessed before the metal can be put into war production. WPB declares its price schedule permits payment of as much as 2½ times the worth of the products for scrap even though many of them will, of course, be just that, and will be sold at ingot prices set by OPA after reprocessing. On these transactions, Copper Recovery (or the United States Treasury, if you like) will take the loss.

The campaign of recovery will be greatly expedited, WPB points out, if industry cooperates by filing complete and accurate reports of inventory as promptly as possible. However, the job is big enough so that it is generally anticipated that Copper Recovery will be in existence for about a year and that it may employ between 300 and 500 persons.

● **Other Products Affected**—Incidentally, the copper recovery drive sets the pattern for programs to which many other trades can look forward. The WPB is out to do the same sort of job in Britannia metal, magnesium, stainless and alloy steels, kapok, tool steel, carbon steel, monel metal, cotton linters, rubberized yarn, copper screening, down and feathers, and a number of others.

Just in case the posted purchase prices on the copper and brass products don't suit owners, WPB states flatly that it will requisition the materials. This, then, isn't just another inventory survey; WPB has a pretty good line on the companies whose civilian output has been shut off by limitation orders, it has checked inventories of some, and it doesn't intend that scarce metals shall remain in hiding in semifabricated form any longer.

# THE TRADING POST

## What Makes the Fighting Spirit?

What does it take to win a war? According to the slogans, war bonds will win the war, or production, or taxes.

But none of the slogans, of course, is true. Only one thing can win the war, and it has not been put into any slogan. For it reeks of blood, sweat, and tears, and such grim matters do not make slogans.

That one thing is fighting. Only fighting will win the war.

And before any people can fight to win, they must be filled with a fighting spirit. They must be for something or against something hard enough to throw in all they have. They must be willing to fight as naturally as they eat, sleep, or breathe.

Those to whom such a notion is distasteful should be reminded that their country was won for them by such fighters only a few generations ago; and that our one hope of survival now is that their fighting instinct still glows beneath the ashes of self-indulgence and easy living. No nation, rich, productive, pampered, scornful of others, can be maintained by any means short of readiness to fight at the drop of a hat.

I am writing this in Texas. And I write it because of all the places I have been since Pearl Harbor, this is where the fighting spirit seems to burn the fiercest. Down here you almost sense a sort of private Texas-Axis war. I don't know what proportion of the Texans are in the Army and Navy but I'd suspect it's high. For Texas has gone to war with the only weapon that can win wars—a fighting spirit and a heart for battle. Here I feel that more than anywhere else. The other evening someone asked me why that should be, and ever since then I've been mulling it over.

Certainly, man for man, the Texans are not radically different from the rest of us. They come all kinds and pack about the normal quota of American virtues and vices. But it does seem that down here this vital fighting spark is more universal and intense than elsewhere. Why should that be?

Yesterday it seemed to me that I got a glimpse of the truth. Once again I stood in the Alamo. I thought of that desperate Sunday morning and of the men who there deliberately chose certain death to surrender. And as I read the records there, I was struck for the first time that these men should be called Texans and honored as Texan heroes.

For, of the nearly 200 who died in the Alamo, only nine were native Texans, and all those were of Mexican blood. The others were native to 20

states and six foreign lands. Travis was of South Carolina, Crockett of Tennessee, Bowie of Kentucky or South Carolina, I'm not sure which. Dr. Pollard was a Yankee, from Massachusetts, I think. Even Sam Houston, who avenged the Alamo at San Jacinto seven weeks later and established Texan independence, was a Virginian.

But for more than a century these men have been honored as Texans, above any who has been born on the soil they freed. Why? When you answer that question, you'll be close to knowing what breeds a fighting spirit and why it runs so strong in the Texans.

For the thing that made Texans of Travis, Bowie, Crockett, Pollard, Houston, and all the rest of them is not what they got from Texas but what they gave to Texas. Texas did not give birth to them; they gave birth to Texas. And that's what makes them *THE* Texans of all time. They gave their all that Texas might be. They were fighting men. And they fought for something bigger than themselves.

Ever since then, Texans have had to be fighters. They have fought to build an empire on the site of the nation their fathers founded. They had first to fight wild beasts and wild men, then they had to keep up a running fight with the elements to make their dreams come true. Even after most of our country had been "civilized"—and already softening—Texas still bred fighting men. Until quite recently, the conditions of the Texan's life have preserved his fighting instincts. Whatever his future success may do to soften him up, the Texan of 1942 still is close to the fighting generations of his tribe.

So, it seems to me, if the rest of us Americans would share that fighting spirit, we must first fight off the temptation to esteem our country only for what we can get out of it and not at all for what we put into it. That is a weakness that comes to older lands; lately it has been getting to us. Too often the American's prowess is judged by what he can contrive to get out of his country, rather than by what he is willing to put into it.

Here is no place to speculate on the origins and implications of that failing. Here let me say only that such an attitude does not win wars, it does not breed the fighting spirit we need to win our war. And it surely does not make us into good Americans, any more than a tick becomes a Longhorn just because he lives off one.

In short, what I am trying to say, I guess, is that it's too bad we haven't an Alamo in every state. W.C.



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# THE TREND

## EVER HEAR OF M. KALECKI?

The purpose of—the economic strategy behind—OPA's General Maximum Price Regulation is a wide open secret. The government has to keep the cost of living down. Only by checking the rise in prices of food, clothing, and shelter can Washington hope to put pressure on wages and farm prices. And only by such pressure can it hope to control the wage rates and raw-materials prices which are the forces that keep inflation spiraling.

In a way, it is like putting a lid over bread dough, in the hope that the yeast which already is in the dough will not rise in its accustomed manner. You put a lid over prices, on the theory that workers, farmers, and business men will not call for the boosts in wages, prices, and profits to which they are accustomed during a period of business expansion. In putting on this lid, OPA has eliminated the price mechanism as the arbiter of who gets the goods. This is a fact which has gone largely unnoticed amid the administrative hurly-burly of putting the price freeze into effect. Yet it is all-important.

• **Note this:** The General Maximum Price Regulation stops manufacturers, wholesalers, and retailers from pricing a customer out of the market. They cannot mark up prices and sell to the highest bidders. Now that the price marks are posted, all of us—rich and poor alike—are equals before the law and the sales clerk.

But we know that there are not going to be enough goods and services to go around. The legal right to buy on a fixed-price basis will not make it possible for us to use our full quota of spending power. That's the outlook, and it can be put arithmetically as follows:

This year, individuals—consumers—will receive \$117,000,000,000 in spending power—wages, salaries, dividends, interest, royalties, professional fees, etc.

Taxes and "normal" savings will take about \$31,000,000,000 of this spendable income.

So there will remain \$86,000,000,000 to buy goods and services.

But goods and services available for purchase will amount to only \$69,000,000,000; for every \$1.25 of demand, there will be only \$1 of goods.

Question: How are we going to equate supply to demand, now that the price mechanism is not at work to do the equating for us? In other words, how are we going to stop people from spending—if not legally, then on black markets?

• **In Great Britain** John Maynard Keynes proposed that people be forced to save, thus sopping up excess money income. And the plan has been introduced as part of the British tax structure—but in a very mild form. Spendable income still exceeds goods and services available for purchase, and strict rationing of key consumption items—food and clothing, particularly—has been necessary.

M. Kalecki, a Polish economist, now living in England, has suggested another plan. He would ration expendi-

tures—not goods—and so balance demand and supply. And that, like Keynes' forced-savings plan, represents a departure from traditional inflation-control procedure during wartime.

• **Reasons Kalecki:** War increases the money supply, but decreases the goods supply. Therefore we must ration. But it is administratively difficult, to say the least, to ration everything—to issue coupons for eggs, safety pins, curling irons, furniture and socks. Instead, let us permit people as wide a latitude as possible in their purchases; only let us ration—limit—their expenditures.

To that end, Kalecki would put a money limit on purchases "in shops" (but no limit on expenditures on entertainment, education, and other services not in short supply). For England, he would allow maximum spending in shops of 25 shillings (\$5) per week per adult and 15 shillings (\$3) for a child.

In this country, assuming \$50,000,000,000 of goods available for sale in shops, expenditure rations would run to \$8.12 per week per adult and \$4.87 per week per child under 14. After that, there would remain \$19,000,000,000 of services to be scrambled by the holders of \$36,000,000,000 of laissez-faire purchasing power.

Now by no means is the Kalecki plan likely to be adopted in the United States. It is far too drastic; and the Treasury has already put it on the shelf. Nor has the Administration much liking for a realistic forced-savings program to close the \$17,000,000,000 inflation gap. It would meet powerful labor opposition.

That does not mean that the Kalecki plan should be set down as a theoretician's dream. It has a solid, statistical virtue; it serves to bring the problem of inflation control—of rationing—into a realistic perspective. It carries down to dollar-and-cents terms just what divvying up a diminishing supply of goods means to the average man and woman. If such a plan were put into effect, it would quickly do away with what are known as the frills and furbelows of gracious living. Expensive shops just could not survive on an \$8-a-week expenditure per adult. A \$20 Panama hat or a \$50 evening dress might not seem dear in dollars, but would take too many weeks' coupons. But as we operate now, the well-to-do are able to get "quality" goods—because there is no penalty on quality.

• **Economically speaking** what it all resolves itself down to is this: There are not—there cannot be in wartime—enough civilian goods to go around. Kalecki's expenditure-rationing scheme validates the point. If, in the United States, we rationed shop expenditures alone, there'd be \$8.12 in coupons per adult per week, \$4.87 per child; if we rationed all expenditures, there'd be \$11.20 per adult, \$6.72 per child. Those are the facts. Congress and the Administration have yet to face them.

*The Editors of Business Week*

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